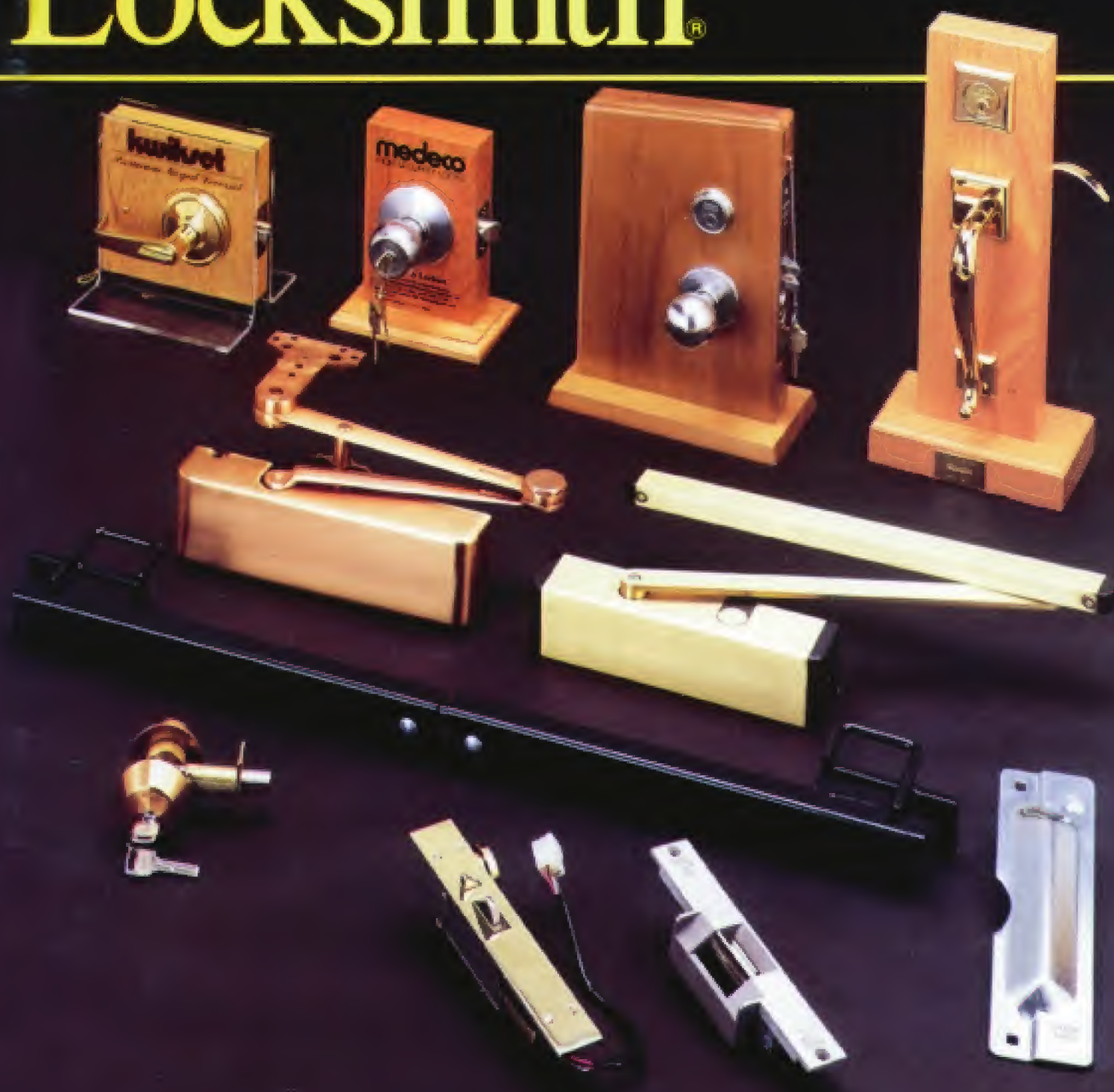


April 1989

The National Locksmith®



Door Hardware Issue

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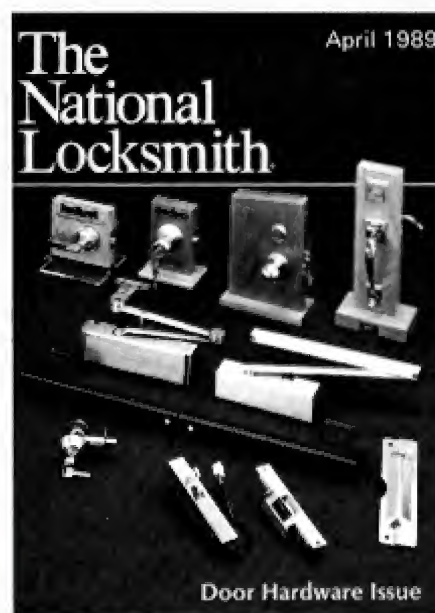
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(Photo by Bakstad Photographics)

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Commentary

I Am A Locksmith

I am a Locksmith. All too often I see you after a traumatic burglary, when you are scared and upset. Many times you call me to improve your security when it is already too late. Your home is a shambles and your property is stolen. Your door locks were old, and the door frame was weak. Entering your house was an easy task for the criminal. But I cannot turn back the clock and prevent your misfortune.

When your business is vandalized, I'm quickly on the scene. I fix the locks which have been super-glued, or I install a new lock when the old one is broken. When you lose your door key, I come right over to pick the lock. I let you in your business and I make you a new key.

I am a Locksmith. Sometimes you call me when your keys are locked in your car. You are frustrated by the inconvenience and expense of having to call me. But when you call, I will be right there with the tools and training to resolve your problem without damaging your car.

I'm there when you lose all your car keys and you didn't save the code tags. I pull down the steering column to remove the ignition. I read the code numbers on the lock and make you a new key to get you on your way.

I am a Locksmith. I am available to cut you a new key when the one you got at the hardware store doesn't work. I'll install a new deadbolt for you when yours fails to work. You bought a cheap import at the home center, but you were angry when you realized no replacement parts were available.

I am a Locksmith. But I must also be part psychologist. Often, when you call me, you have had some sort of trouble. Security is not usually on your mind unless you have had a problem. It is not easy to deal with people when they are upset.

I have been trained to secure and protect your home, your business, your property...and yes, even your life. I know that many hardware stores sell locks cheaper than I can. I know that in some towns the police will open your locked car at no charge. But I will be there for you when the cheap imported lock breaks. And I will be there for you when the police damage your car with their "free" service.

I am a Locksmith. I take my profession very seriously. In the best of all worlds, you'd call me to repair your locks *before* someone took advantage of them. In my dreams, people realize that a locking door knob is not enough protection for them and their family. I'd love you to call me for a deadbolt before someone rips off your doorknob with a pipe wrench.

I am a businessman, a diplomat, a psychologist and a Locksmith. I spend my entire career trying to help you keep out the bad guys. Sickness is the enemy of the doctor. And the criminal is the enemy of the Locksmith. I will be there to help you after the break-in. But it will bother me to know that a little security would have prevented your loss.

I will be there to help you protect what is yours. I offer products and services to help secure cars, homes, businesses and more. I read trade magazines and belong to associations so I can learn more about how to protect you. My whole profession is sworn to protect and secure the property and safety of the public.

Of course you can call me after a loss. But I would rather be there first to help prevent that loss. Criminals offend me. Your security is a sacred trust to me. *I am a Locksmith.*

CORRECTION: In the March issue we inadvertently published the wrong address and telephone number on the Continental Micro advertisement. We apologize for any inconvenience this may have caused. The correct address and number is: Continental Micro, P.O. Box 394, Park Ridge, IL 60068, (312) 692-3630.



Marc Goldberg
Editor/Publisher

April 5

Letters

Comments, Suggestions and Criticisms

The National Locksmith is interested in your view. We do reserve the right to edit for clarity and lengths. Please address your comments, praise, or criticism to: Editor, The National Locksmith, 1533 Burgundy Parkway, Streamwood, IL 60107. All letters to the editor must be signed.

Shocking Story Provides Warning To All

This letter is to sadly inform you of the untimely death of fellow locksmith, Marvin Webster. On the morning of December 29, 1988 he was answering a call to open a locked car at 1:30 a.m., and didn't return. His van, still running, was found with him slumped over the wheel by a property owner near the motel where he went to meet his presumed customer. He had been robbed of his billfold and shot with a 22. caliber gun three times as he sat in the driver's seat. The shots apparently came from the passenger side of the car. His rings and his gun under his seat, had not been touched. Nor, apparently, had any of the tools in his truck been stolen. He had approximately \$80 on him as nearly as we can tell at this point. The police, at this writing, do not have a suspect in custody nor is there any motive other than robbery.

Marvin was 49 years old, had a wife, a grown daughter and son, two stepsons, and several grandchildren. He owned and operated "Webster's Little

Repair Shop" in Corsicana, Texas for several years. About three years ago he began to actively pursue the field of locksmithing and in that time had become an excellent locksmith.

With his extensive mechanical background, and a successful appliance repair business already established, he was a natural to locksmithing. He was a member of the Texas Locksmith Association, secretary for the Greater Dallas Locksmith Association, and had expressed to me the intention of joining ALOA in the near future.

Among his greatest joys were the mini-vacations with his wife to a resort community called "Hilltop." He also loved flying his Cessna airplane, golf, meeting and dealing with people and, working on locks. He was what all locksmiths should strive to be; a very "people oriented" person.

He loved his customers so, that he had established a tradition of a free "pot-luck" lunch at his shop every Wednesday. Many of us came and enjoyed the friendship and good food. Many people who knew and loved him, and came every Wednesday that they could, will miss him and those special times. Events and people like that are not made, they just kind of happen, and once gone, may never happen again.

On a personal note, I feel a great sense of loss. People who are friends with you for the sole motive of just being friends are scarce. I have lost such a friend and I will miss him very much.

It is of note that I had received several false lockout calls in the last several days, late at night, from what we think was the same person. In fact I had gone to the same location the night before and didn't make contact with the customer. We determined that, indeed, there was no lockout. I am certain that if a policeman had not been driving by just prior to my arriving at the location, it might have been me killed instead of Marvin. I was so disturbed by it and the previous calls, that I called Marvin the next morning and discussed it with him. He had, had a similar call within the last week.

Both of us had violated what I now believe to be a cardinal rule. That is to verify the existence of the customer, the location, and the true nature of the emergency, by getting a phone number, and checking it out by calling back or calling the police.

In short, we were naive, and it cost dearly. We have to remember that things like this do and can happen to us and not just other people. We cannot be caught unaware. This can be a dangerous business that we are in if we include late night call-outs in our business and should be treated as such.

I am notifying the Texas Locksmith Association to warn them that there may be someone out there that is picking on locksmiths as easy targets. By doing so someone else may be spared this tragedy.

C.D. (David) Lipscomb
Texas



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Enter the 1989 Technitips Contest

\$\$\$ Thousands and thousands in cash and prizes! \$\$\$

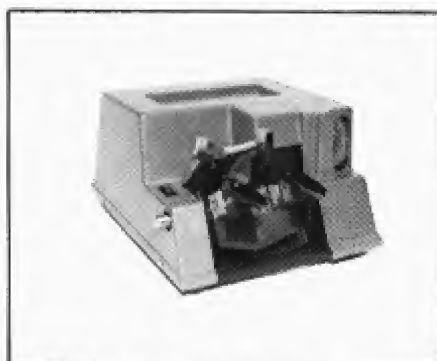
First Prize



HPC Bravo

The two speed motor cuts brass or steel. The 4-way vise jaws securely hold almost any key. A micrometer style depth adjustment and precise shoulder gauging cut the most accurate keys possible.

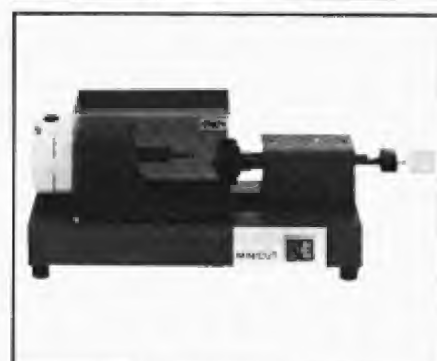
Second Prize



ESP 990 Manual

This machine features double-sided reversible jaws that eliminate the need for adaptors. The carriage is fixed to the sliding carriage shaft resulting in reduced play and less shaft wear.

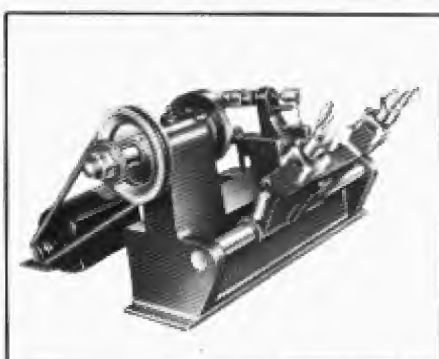
Third Prize



Ilco KD94

Cuts the 1137 tubular key, brass or steel accurately and quickly. Features include large chuck to hold standard size key heads, easily adjustable.

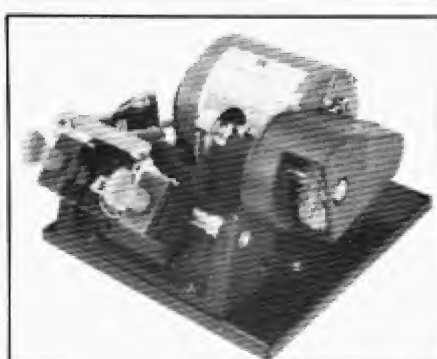
Fourth Prize



Belsaw 200

Duplicate, cut by code, cut flat steel keys. Complete machine with motor, three cutters, guides, and instructions. Built-in micrometer.

Fifth Prize



HPC 9160

Ideal for large key duplication. Equipped with fine double-sided jaws ensuring accurate cutting with little or no wasted blanks.

Sixth Prize

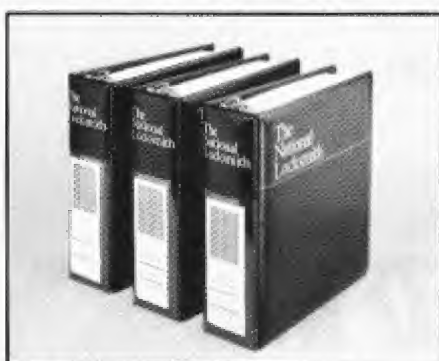


\$150 Cash

Everyone can use a few extra dollars! This prize will brighten your day...and fatten your wallet.

***** Code Books From *The National Locksmith* *****

Seventh Prize



General Code Book Set (NGCB)

These three books contain 450,000 codes covering domestic lock and automobile codes.

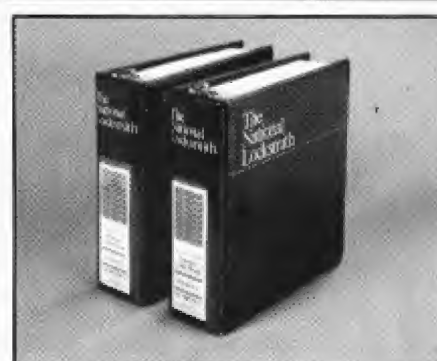
Eighth Prize



Padlock Code Book Set (NPCB)

These three volumes offer 462,000 codes covering Dudley, American (Junkunc), Master and Yale.

Ninth Prize



Foreign Car Code Book Set (NFCB)

This two volume set holds 432,000 codes for the complete variety of foreign cars, from Alpha Romeo to Yugo.

Technitips

Helpful Hints from Fellow Locksmiths



Send me your Technitips. Who knows, you may be our next winner! c/o The National Locksmith, 1533 Burgundy Parkway, Streamwood, IL 60107.

by Robert Sieveking

This month's Technitips column has a few tips that should get you thinking. The tip that impressed me the most this month concerned safety. Safety is always the first thing you should be thinking about as you start a job.

Experience usually leaves the most lasting impression on a person. So, as I read Patty's letter that related the experience of running a drill through her finger, I was immediately taken back to the same "unforgettable experience." Like an electric jolt, I can still feel the pain and surprise of running a 1/16" drill into my thumb and right out through the nail. Pain is one of those teachers that stays with you. Safety is one of those things we all forget or ignore from time to time. If you need to drill something, hold it securely in a vise, not in your hand.

Safety glasses should be the order of

the day in all key shops, but it is not that common to see a locksmith wearing them as he cuts a key or hammers a steel stamp to leave that "lasting impression" on the bow of some key. One day, a chip is going to fly off that key machine or hand stamp, and leave a lasting impression on you if you don't get those safety glasses out and keep them on your face. Experience is by far the best teacher, but it is a most unforgiving master.

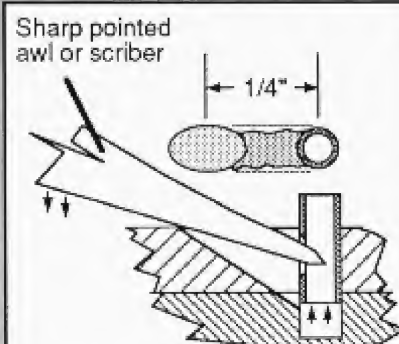
Of all the Technitips I can think of, "work safe" is by far the most important. Think safety this month. If there's something you're doing that is not safe, change. Avoid an "unforgettable experience" or a "lasting impression."

April's Best Tip

This Technitip is really two tips in one. Though this tip concerns removing roll pins, it also concerns safety. I recently had to remove a small roll pin from a foreign auto lock to service the cylinder. During the procedure, I had the enlightening experience of drilling a hole

"through" my thumb. Though the hole was small, it gave me a lasting lesson. If you have to drill something, hold it in a vise. That was the first tip. The second tip is the method of removing the roll pins.

Drill a 1/16" to 3/32" hole next to the roll pin, about 1/4" away from the pin. Angle the drill to meet the pin below the surface of the part, as shown in illustration one. If the pin



To remove a roll pin, drill down on an angle from about 1/4" away from the pin. Then use an awl or sharp scriber to "lever" the pin out.

Illustration 1

How To Enter

All you need to do to enter is submit a tip, covering any aspect of locksmithing to *The National Locksmith*. Certainly, you have a favorite way of doing things that you'd like to share with other locksmiths. Why not write it down and submit it to: Robert Sieveking, Technitips' Editor, *The National Locksmith*, 1533 Burgundy Parkway, Streamwood, IL 60107.

Tips submitted to other industry publications will not be eligible! So get busy and send in your tips today! You may win cash, merchandise, or even one of many key machines or code book sets! At the end of the year, we choose the winners of the listed prizes.

Last year dozens of people walked off with money and prizes. Wouldn't you like to be one of the prize winners for 1989? Enter today! It's a lot easier than you think!

Every Tip Wins 'Locksmith Bucks!'

Yes, every tip published wins a prize. But remember, you must submit your tip to *The National Locksmith* exclusively. Each and every tip published in Technitips wins you \$25.00 in Locksmith Bucks! Use this spendable cash toward the purchase of any books or merchandise from *The National Locksmith*. You also receive a Bonded Locksmith bumper sticker, decal and patch. Plus you are now eligible for the really big prizes!

Best Tip of the month prizes!

If your tip is chosen as the best tip of the month, you will win \$50.00 in cash as well as \$35.00 in Locksmith Bucks! Plus you will receive a quartz Locksmith watch, a Bonded Locksmith bumper sticker, decal, patch and a Locksmith Cap. Plus, you may win one of the great prizes pictured above.

is hardened, you may want to use a carbide dental burr or Dremmel cutter to cut a small hole in the roll pin near the bottom. Then, using a sharp instrument, lever the pin up and out of the housing.

After repairing the lock cylinder, replace the pin and fill the drilled hole with Liquid Steel or Liquid Aluminum metal filler. This is a neat and professional method of removing roll pins.

Wear eye protection when drill-

ing or using the Dremmel grinder. Accidents can be a real pain in the thumb.

Patty McCandless
Arkansas

If you do auto work and have a hard time remembering the different makes and models, go to your local news stand and buy a consumer guide to used cars. (Used Car Price Guide.) The book is printed annually and lists all

the current automobiles and their manufacturers. Keeping up with whether a certain model Chevy is from Detroit or Tokyo can be a full time job when quoting prices for a first key. By referring to the price guide, you can find whether a certain model is an import or domestic. You can also use the margins to write down information like key blanks, codes and code locations, opening tips or anything you might want to remember about a certain model of auto.

It is a handy method of compiling and keeping track of information that is not available in an organized form from any other source. I hope this tip will help other locksmiths that have the same problem finding and keeping track of this type of information.

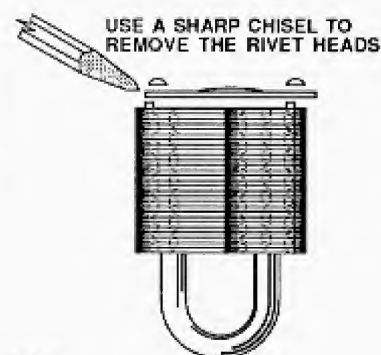
Scott Rucker
Ohio

This Technitip concerns a method of re-riveting Master padlocks and other laminated padlocks after rekeying. The biggest problem when rekeying padlocks is putting them back together after the rekeying is done. My solution for this problem is simple. Carefully remove the rivet heads with a sharp chisel, avoiding damage to the lock by holding it in a vise using soft brass or lead jaw inserts. Remove the bottom lamination of the lock using the same sharp chisel, without damaging the

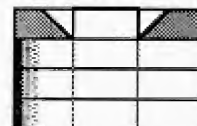


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THEN,
COUNTERSINK THE PADLOCK
BOTTOM PLATE BEFORE
REPLACING IT ON THE LOCK



THIS LEAVES ENOUGH MATERIAL
TO RE-RIVET THE BOTTOM IN PLACE.

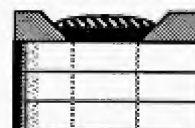


Illustration 2

rivets. Keep the lamination as flat as possible, so it will look good when reinstalled on the lock. Once removed from the lock, countersink the rivet holes to the thickness of the lamination. (See illustration 2.)

After re-keying the lock cylinder, replace the bottom lamination and peen the rivets into the countersunk holes. By countersinking the lamination, you will expose enough of the rivet to secure the bottom a second time.

J. Kelly
Texas

I would like to thank Mr. Womack of Texas for the tool he submitted last month. I'll no longer have to go chase "C" rings around the shop. To show my appreciation, I offer this dandy tool for holding GM cylinders for reading and decoding. It is very simply a 1/2" copper pipe coupling with a 1/4" wide section cut out of the side. I use this little tool for holding the side-bar depressed while reading the wafers with the reader tool.

To use the tool, start the coupling onto the rear of the lock, and slide it up to the back of the side-bar as shown in illustration three. Put slight pressure on the side-bar as you rake the wafers to pick the lock. After the side-bar drops in, simply slide the coupling over

it to hold it in place. The 1/4" slot should be over the wafers, to allow you to read their positions within the lock and determine the proper key cuts.

The best thing about this little tool is that it only takes a few minutes to make and costs only a few cents.

Steven Glass
Tennessee

I just received my latest issue of *The National Locksmith* and enjoyed your column as usual. I hope someone will

benefit from this tip on opening inner safe doors.

These inner sheet doors can become a real problem if not handled properly, as some of the locks use false gates and saw tooth levers just like their first cousins the safe deposit box locks. This is the same trick that some use to open safe deposit boxes, but some of my dimensions are specific to the older lever locks found only on these inner security doors and nests. Illustration four conveys the essence of this Technitip.

The idea is to drill a hole through the



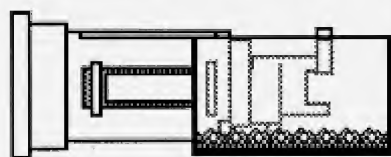
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1/2" COPPER PIPE
COUPLING

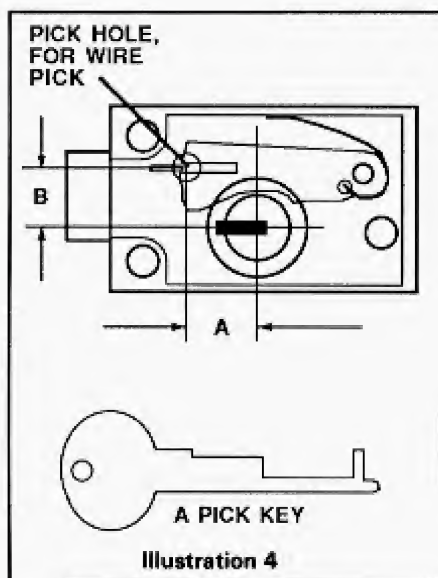


CUT A 1/4" WIDE SLOT IN THE
SIDE OF THE COUPLING



SLIDE THE COUPLING OVER A
GM CYLINDER AFTER PICKING,
TO HOLD THE SIDE-BAR IN,
WHILE YOU READ THE
WAFERS THROUGH THE SLOT
IN THE COUPLING

Illustration 3



door at a point just in front of the fence. By drilling an $\frac{1}{8}$ " hole at this point, it is an easy task to insert a stiff wire into the hole and lift the levers with a pick key like the one shown, one at a time, from front to back, slipping the wire pick through the gate each time, until you are supporting all the levers, by their gates at the exact level of the fence. The last thing to do is to use the pick key to apply pressure to the bolt

side, slowly pull the pick wire from the lock and retract the bolt.

As long as your hole is drilled accurately, it probably takes longer to explain the process than it does to open one of these locks. This method eliminates drilling for the mounting screws and repairing a number of holes in the door that must be re-tapped to hold the lock, once the door is opened. It also allows the door to be opened without destroying the lock in most cases.

Well you don't think I'd give you this great tip without giving you some of the measurements I use on some different locks do you? I hope you can sort out the dimensions:

- Large Yale, bronze lock with turn knob. Double-sided key, reversible. (Try picking first, no teeth in this one.) "A"= $\frac{15}{16}$ ", "B"= $\frac{3}{8}$ ".
- Smaller Yale & Towne bronze case, jigger and scroll work on back of lock. "A"= $\frac{15}{16}$ ", "B"= $\frac{1}{2}$ ".
- Small Yale & Towne inner compartment locks, either the spring bolt or deadbolt type. "A"= $\frac{3}{4}$ ", "B"= $\frac{3}{8}$ ".
- Herring Hall Marvin lock, single and double doors. "A"= $\frac{1}{2}$ ", "B"= $\frac{1}{4}$ ".

- Large HHM (as above), or Hall lock, uses flat key. "A"= $\frac{3}{4}$ ", "B"= $\frac{3}{8}$ ".
- Pittsburgh double-door and others using the old S & G flat key lock with the double-sided convenience key. These locks have teeth. "A"= $\frac{9}{16}$ ", "B"= $\frac{3}{8}$ ".
- Pittsburgh smaller door using the eagle or S & G lock (7SS key). "A"= $\frac{3}{8}$ ", "B"= $\frac{1}{2}$ ".
- Old Eagle or Diebold. "A"= $\frac{3}{4}$ ", "B"= $\frac{9}{16}$ ".
- S & G 4440 double-nose, used on inner doors of floor safes. "A"= $\frac{3}{8}$ ", "B"= $\frac{7}{16}$ ". Measurements taken on tenter side, RH lock.

These are just a few of the locks that I have used this method on. If you'll take time to measure and write down the fence locations of the inner door locks that you encounter, you'll be making it easy on yourself if you ever have to open one after the keys have been lost.

W. O'Dwyer
Connecticut

Here's a Technitip that can save time when you are called to open the trunk of a Ford Tempo. Though some of the



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new cars are equipped with electric trunk openers, they sometimes are not equipped with cigarette lighters. The cigarette lighter has served to supply power to trunk openers on most occasions, but if the car is not equipped with one, it is no problem to go back to the fuse panel for power. The courtesy light fuse will have power even when the ignition is in the off position. Use a short piece of wire to bring the power to the trunk opener switch in the glove box.

Raymond James
Kentucky

This Technitip is for an inexpensive drop safe. I had a request from a local hospital gift shop recently, for a place to put shift cash after a shift change. Several different types of safes were suggested, but all were rejected for one reason or another.

I finally suggested that a key cabinet with a drop slot to accept the money envelopes would probably give all the security necessary for this application. A price was agreed upon and the job was begun. A key cabinet $3\frac{1}{2}'' \times 13'' \times 17''$ was used. A slot was cut in the top of the cabinet and a wood frame attached to cover the sharp edges of the

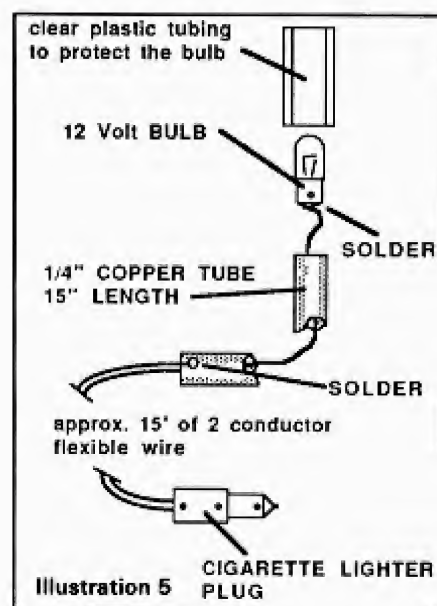
metal box. An internal baffle plate was installed to prevent fishing of the envelopes and the rails for the key hooks were removed from the box. The cabinet was mounted in the security office for extra protection.

Though the security afforded by the "key cabinet/drop safe" is limited, it was sufficient to meet the needs of the customer. The "safe" has been in use for over a year now and there have been no problems.

Vito Ancona
Maine

This tip involves making a flexible light to be used as a back-up for your regular flex light. Since I began using a flex light to see inside the door to locate the linkages when opening cars, I can't imagine trying to open some of the newer models without one.

The length measurement is optional, but I used a piece of $\frac{1}{4}''$ flexible copper tubing about 15" long. Ream one end to fit a 12 volt bulb (#272-1143 from Radio Shack). Using about 15 feet of two conductor speaker wire, pass one conductor through the tubing and solder it to the small terminal of the light bulb. (See illustration six.) Solder the other conductor to the opposite end



of the tubing. Install a cigarette lighter plug on the opposite end of the speaker wire to supply power to the light. To protect the light bulb, slip a small piece of clear plastic tube over the tip of your new flex light. Plug the light into the cigarette lighter of your service vehicle to test.

The light works well and appears to put out more light than the smaller battery flex light.

Marvin Golden
Oklahoma



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Newsmakers

New Products and Industry News

Progressive Energy Corp.'s Barking Dog Alarm

The Barking Dog Alarm from Progressive Energy Corp., is a new electronic alarm that serves the purpose of a vicious guard dog without the extra trouble of feeding, walking, fleas or vet bills.

Simply plug the "new dog" into any standard outlet and it barks for 55 seconds. Then it shuts itself off until it hears another sound. Any sound causes it to respond with a fierce bark.

Designed in England the dog is an actual recording of an English Bull Terrier (i.e., Spuds McKenzie type). Recorded on a computer microchip there are no moving parts to wear out.

Both the loudness and the amount of noise it takes to activate the electronic dog are adjustable.



Slide Lock Reviews Cars In Z-Tool '89 Update

This year U.S. and Japanese auto makers were unusually late in getting the majority of their new '89 models off the production lines and into the marketplace. Customarily, model changes are in the showrooms no later than November, but due to the bonanza of model changes in the 1988 model year the auto makers did not get all the 1989 models to the showrooms until February of this year.

Slide Lock Tool Co. waited also, and now has a list of changes and new procedures for opening the new models available. Z-tool's '89 update list includes (in part) Nissan's Maxima new body change and their newest and toughest 240 ZX, SE models (it is recommended that you do not attempt to unlock this car without the proper tools and appropriate instructions.) Z-tool's '89 update also includes Chevrolet's GEO line, Ford's '88 year ending Probe, and Chrysler's newest model, Acclaim, which has an inventive anti-theft device.

Three pages of illustrations, instructions, and an '89 indexed vehicle guide comes on convenient "crack and peel" paper which adheres directly to the blank pages left open throughout the manual for this purpose.

Kwikset Full Line Consumer Brochure

A new brochure created to promote retail sales of locksets, deadlocks and other Kwikset products is now available to Kwikset dealers.

Called the Product Selector Guide, the full-color brochure showcases more than three dozen Kwikset products, including knob and lever designs, entrance handlesets, security products, decorative trim and more. The brochure also reminds consumers to be sure and check the Kwikset displays used by virtually all Kwikset dealers. To make that as easy as possible, the Kwikset Selector Guide illustrates Kwikset's clear packaging so customers can readily identify it in stores.

Designed in a convenient, 16-panel format, the guide is titled, "Doorway Beauty and Security from America's Leader in Locksets."



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Installation Tools

**The
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Corby Industries' New Poster Calendar

Corby Industries Inc. is establishing a new tradition for the access control industry with its "Corby Girl" calendar. This new, full-color, poster-sized 1989 calendar is available through Corby distributors.



Master Lock Padlocks Offer Heavy-Duty Protection

Extra-high-security Master Lock padlocks No. 15 and 17 provide maximum protection for storage sheds, gate latches, truck doors, industrial equipment, tool boxes and other valuable property.

Master Lock's heavy-duty No. 15 is the lock featured in the famous "tough under fire" rifle shot test on TV. Both the No. 15 and the No. 17 padlocks have precision-engineered, five-pin-tumbler cylinders, affording thousands of possible key changes.



Patented dual-lever action independently locks both shackle legs, protecting against shimmying, pulling and rapping. Case-hardened high-tech steel alloy makes the shackles highly resistant to cutting and sawing.

Jensen Tools' JTK-85R Tool Kit

The JTK-85R tool kit, now at a reduced price from Jensen Tools, is designed to assist the installer of alarm and security systems. The kit contains more than 80 tools specifically selected to make installation work fast and efficient. Included are screwdrivers, nut-drivers, wire strippers, magnetic stud finder, hacksaw, drill set, calipers, drywall saw, fuse puller, grounded outlet tester, solder and soldering iron and much more.



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Lockmasters Offers Two Resident Programs

Lockmasters is now offering two new resident programs, designed for institutional, industrial and government lock and security work.

The first, G.S.A. Security Container Training, is a five-day course which will teach opening and repairing procedures for the thousands of G.S.A. approved containers currently in service. Containers meeting G.S.A. specifications are the only units approved for storage of sensitive U.S. government information. This course will offer the technician the background and the knowledge necessary to service government contracts, expand business opportunities, and increase profits.

The second course, Professional Facility Locksmithing, is an intensive two week, hands-on, program designed to train the technician for institutional and industrial lock and security work. Students gain a thorough understanding of the limitations, varied possibilities and optimum use of physical security systems.

1989 Schlage Sweets Catalog

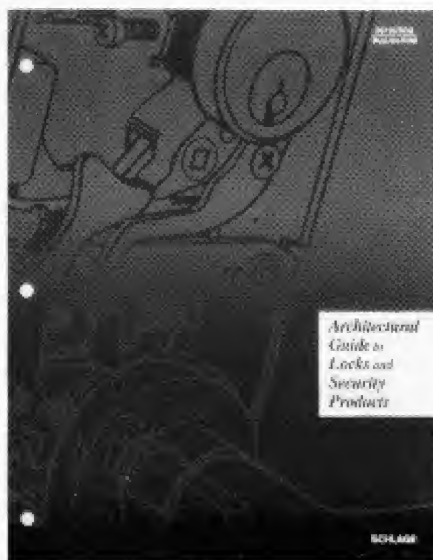
Schlage Lock Company announces the availability of its new 1989 Sweets Catalog, #MS-B103 which illustrates the full line of Schlage mechanical and electronic security products, including Primus High Security Cylinder and the Key 'N Keyless Residential Electronic Lock.

This new catalog serves as a practical reference guide containing Schlage

products, functions, and styles, along with the relevant ANSI number and grade classification. Each year Schlage publishes an updated version to advise the field of new product developments as well as pertinent, technical changes to existing products.

Architects, specifiers, and designers have found the Schlage Sweets a valuable reference guide for specifying and clarifying technical information.

Circle 245 on Rapid Reply



JLM Wholesale Adds Roton Hinge

JLM Wholesale is pleased to announce the addition of another quality product line to its inventory. As of 1989 JLM is stocking Roton Continuous gear hinges.

Hinges will be stocked for seven and eight foot doors in aluminum and dark bronze.

NATIONAL

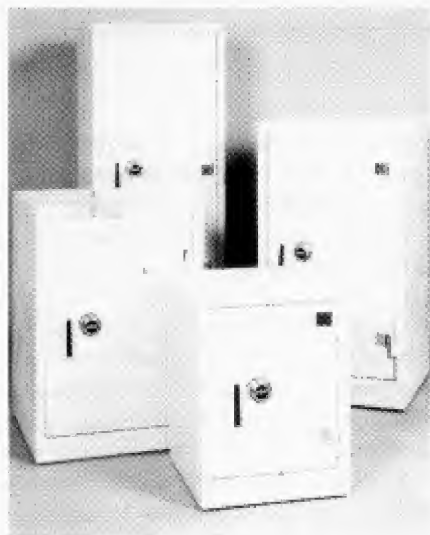
AUTO LOCK SERVICE, INC.

National Auto Lock Service, Inc. offers a wide range of equipment and services for the Automotive Locksmith. From tools and hard to find key blanks to transponder programming, we can take the mystery out of car service. We accept credit card orders, and can ship COD. Contact us for the latest in automotive technology.

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Sale Introduces Meilink Record Safe Line

A "buy one at regular price, get the second for half price" promotion kicks off the introduction of Meilink's new class 350 - 1 Hour Record Safe Line. Four single-door models, ranging in size from 22 to 55 inches internal height comprise the new line.

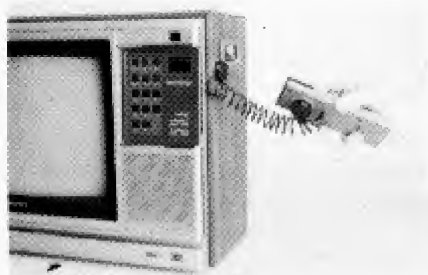


The safes feature a textured light gray finish, shelves included in the base price, Vue-Gard[®] dial and S & G Group II combination lock.

Se-Kure Controls, Inc.'s Coil Security System

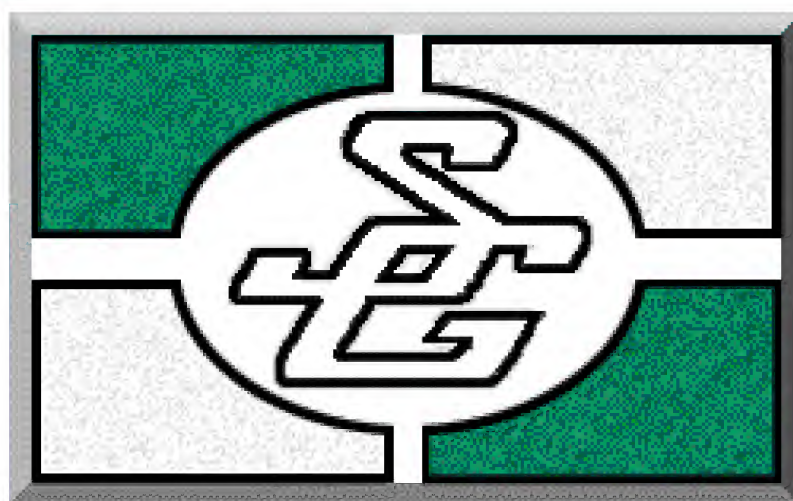
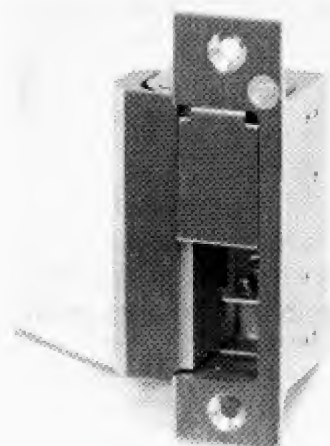
Se-Kure Controls, Inc., re-introduces their Coiled Security System which protects small merchandise against shop-lifters. Economical, easily installed, and complete, this coiled security system provides constant protection for retailers of all sizes.

Its many features include high tensile aircraft cable with protective coating, high impact plastic plugs, industrial, strong, adhesive pads, protection against damaging merchandise and can easily be installed without tools. It keeps close to merchandise to protect remote controls and small electronics.



H.E.S. 1003KD Electric Strike

H.E.S. announces the development of their new model 1003KD electric strike. The 1003KD is a modified version of the model 1003K which is capable of releasing an offset mortise lockset with an auxiliary deadlatch. The 1003KD has been designed with a lower centerline than the 1003K, to accommodate those locksets with latchbolts falling below the parameters of the ANSI 4 $\frac{1}{4}$ " strike lip.



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STRATTEC

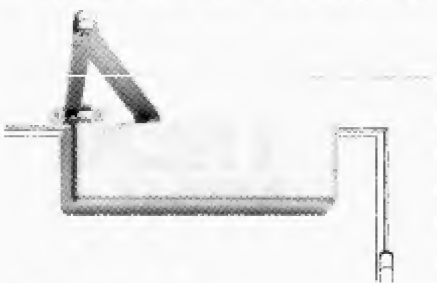


LCN Door Closers

"By installing high quality door control products, you can reduce door and frame damage, eliminate costly maintenance and minimize inconvenience."

Most commercial, industrial and public building doors open over a million times a year. Keeping these high-traffic doors opening and closing smoothly can be as difficult as servicing them monthly, replacing faulty equipment and re-routing traffic to a less convenient but working entrance, or it can be as simple as installing quality door control products at the very onset of construction or remodeling. Installing a professional, quality entrance system can spare the owner the hassles of malfunctioning door closer products as well as save him money in the long run.

By specifying and installing high-

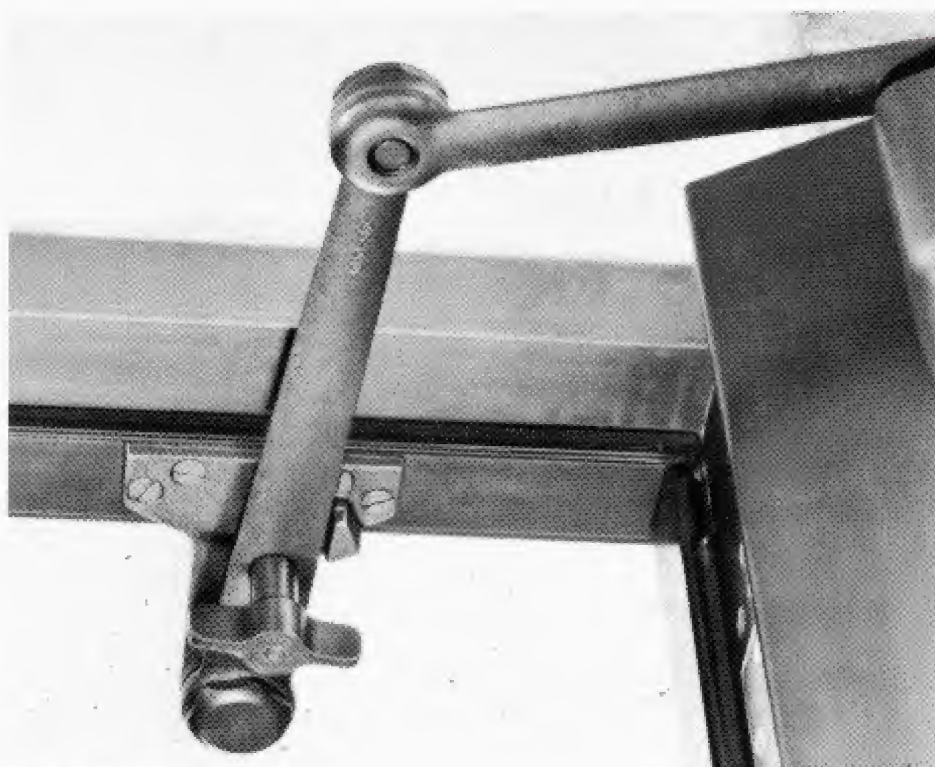


Super Smoothee.

quality door control products, you can reduce door and frame damage, eliminate costly maintenance and minimize inconvenience. Sound door control doesn't begin when the closer is mounted on the door. It begins at the specifications stage for new construction, remodeling or replacement.

Quality door control products such as those offered by LCN, can be very helpful in *preventing* door control problems. The following is a description of some of the most common door problems and the LCN products and features designed to prevent such problems.

Exterior and even some interior conditions. LCN's Smoothee closers (4010, 4020 and 4110) are handed, sized and include an adjustment to increase the spring power up to 50 percent. LCN also offers the Super Smoothee that is



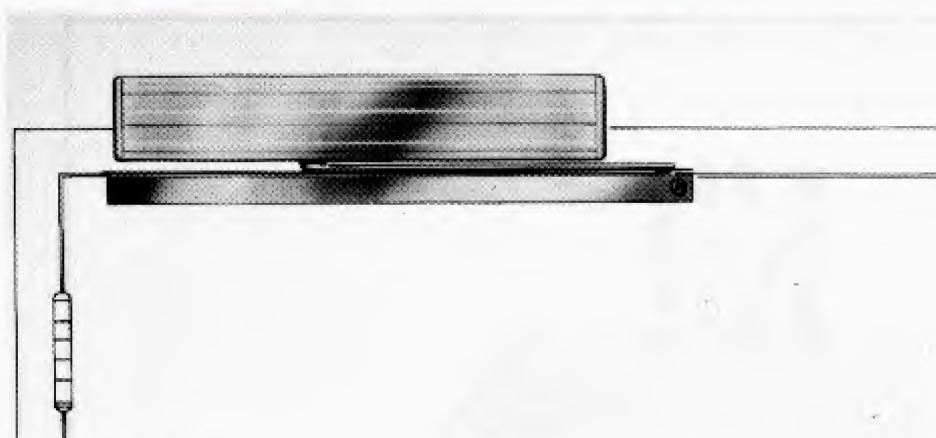
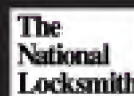
Cush-N-Stop function.

non-handed, can be adjusted from size two to size six and mounts three ways (hinge side, top jamb and parallel arm) to meet these needs.

The extremes of heat and cold can affect a closer's ability to control the door properly. Oil that changes viscosity allows the door to slam in the summer because it thins out, and holds the door open in the winter because it thickens. LCN's architectural grade closers feature Liquid "X," which maintains a constant viscosity from 120° to -30° F. This eliminates the need for maintenance personnel to re-regulate the closers with the change of seasons.

Some type of mechanical stop must be provided to physically stop the door from hitting an adjoining door, the wall, or other obstructions. LCN's Cush-N-Stop arm, available on the 4110, 4040 and 1460 closers, features a stop built into the arm of the closer. This eliminates the time and labor required to install an auxiliary floor or wall stop. To keep the door from slamming into the stop, the closer should provide hydraulic backcheck. Backcheck cushions the door swing as it approaches the stop. All LCN's heavy-duty door closers feature fully adjustable backcheck.

Most building codes require the use of self-closing fire doors to help isolate the smoke and fire. Modern electronic



LCN Auto-Equalizer.

closer-holders are tied to the fire alarm system. State-of-the-art ionization smoke detectors react not only to visible smoke, but also to invisible particles of combustion that are produced in the early smoldering stages of a fire. LCN Sentronic closer/holders offer a complete line of single or multi-point units. Built-in ionization smoke detectors also are available. The Sentronics are fully compatible with all modern smoke detection and fire alarm systems.

Another major problem to be dealt with is entrance accessibility for the handicapped, elderly or frail. The handicapped are not only those confined to a wheelchair; someone with a broken leg in a cast using crutches also may be considered handicapped. Many products are available to meet the building codes and occupant's requirements. These are some LCN products specially designed to solve these problems.

The LCN 4041 and 1461 are adjustable from size one to size four. These non-handed, heavy-duty door closers with reduced spring force meet the five pound opening force maximum limit found in many codes.

LCN delayed action closers offer a special feature which delays the closing movement of the door after it has been opened. The delayed closing time period is field adjustable from 15 seconds to two minutes.

LCN Auto-Equalizer is a slow-opening automatic door operator designed for use on doors used by people who are handicapped. It automatically opens a door to 90 degrees when actuated and holds the door open up to 30 seconds. LCN Equalizer is a power-assist unit which can reduce the force required to open a door by as much as 75%.

Usage, abuse, weather, lack of maintenance and normal wear and tear are

only a few of the factors that affect the life of an entrance system. The best protection against these general problems is to use a quality door control product that is well engineered and precision manufactured.

LCN is one manufacturer of such quality products. They provide the lowest life cycle cost of any product available today. LCN closers have earned a reputation for reliability and durability year after year in the most difficult types of door closer applications. ■

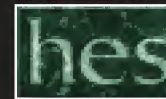


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Arrow Lock Products

"The Arrow products incorporate many features to simplify and aid in ease of installation and service. This saves the locksmith's time."

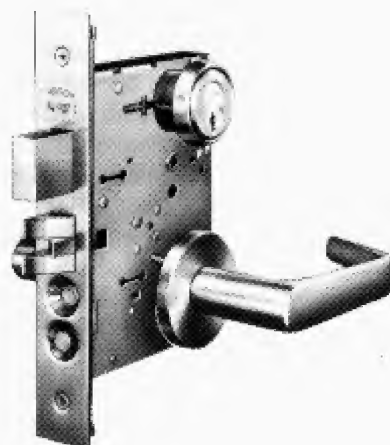
Arrow, a subsidiary of ESSEX Industries, Inc., has long been known as a manufacturer of quality cylindrical, mortise and deadlocks. It has recently added door closers, exit devices and alarms to the product offering. The reason for the expansion is that a locksmith's needs extend beyond locks and cylinders.

Arrow sells to the replacement market exclusively through the locksmith wholesaler. "Our products will never be found on a mass merchandiser's shelf. We respect the experience and craftsmanship of the locksmith and the design of Arrow products reflects that. Our locks are for the experts, not the weekend do-it-yourselfer," said P. Richard Garofano, Director of Marketing.

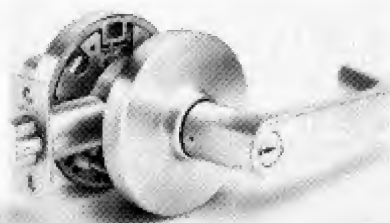
Ease of installation. The Arrow products incorporate many features to simplify and aid in ease of installation and service. As an example, the mortise locks are field reversible and feature a standardized case for uniform mortising. (See photograph 1.) All components of the lock are either brass or zinc dichromated steel for durability. The rose trim is self-aligning to eliminate binding. This facilitates installation and saves the locksmith valuable time.

Cylindrical locks are available in heavy, medium and light duty designs. (See photograph 2.) This allows the locksmith to use exactly the right lock for the job. The heavy duty locks are also available constructed entirely from non-ferrous materials which make them highly corrosion resistant. All Arrow cylindrical locks are reversible and fit standard door preps. Backsets up to 5" can be accommodated, and 1" or 1 1/4" latch fronts are available.

A full range of deadlocks is also available. Heavy duty and extra heavy duty tubular deadlocks feature 3/4" or 1" deadbolts with hardened steel pins for added security. Deadlocks in the mortise design with similar deadbolt construction complete the Arrow lock line.



1. Arrow's mortise lock.



2. The Sierra key-in-lock heavy duty cylindrical lock.



3. The S1200 touchbar rim device.

As with all of the other locks, the deadlocks are field reversible and fit standard door cutouts.

In 1988, Arrow introduced replacement cylinder packs in competitive C&E keyways. These are for use in its medium and heavy duty cylindrical locks as well as both heavy duty and extra heavy duty tubular deadlocks. The packs allow the locksmith to use Arrow while giving him the flexibility to key into existing key systems.

New products added. The new Arrow exit devices are styled in both conventional crossbar and low profile touchbar designs. They come in architectural grade plated finishes as well as durable

powder-coated painted finishes. Rim, vertical rod, and mortise-type devices are featured to fit a wide range of applications.

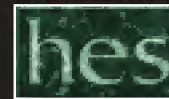
The S1200 low profile touchbar rim device is ideal for the locksmith. (See photograph 3.) It features a non-handed one-piece chassis. The aluminum-magnesium alloy used is both lightweight and strong. It is designed for fast, easy installation on wood or hollow metal doors ranging from 24" to 48" in width. The S1200 has all functions built into a single chassis design to simplify ordering and stocking.

To complement the exit devices, Arrow has also introduced a full line of alarms. The line includes a stand-alone alarm unit for use on doors with existing hardware, as well as paddle and pushbar alarmed exit devices. All of the Arrow alarms are designed with ease of installation and low maintenance in mind. They are powered by a standard 9V alkaline battery that is quick and easy to replace. The alarmed exit devices feature the same chassis and touchbar configuration as the S1200.

To complete their product offering, Arrow now offers three models of door closers. The low-end closer is available in sizes 2 through 6. Also available is a multi-sized closer adjustable to sizes 1 through 6. The multi-sized closer can be purchased with a streamlined cover to prevent unauthorized tampering. Arrow door closers are non-handed and have separate valves for adjustment of latching and closing speeds and backcheck. The closer body is made from cast aluminum for high strength.

Commitment to customers. Arrow is committed to providing the products their customers need in today's changing market. It will continue to expand its product offering to meet those requirements. This year, the new Sierra key-in-lever heavy duty cylindrical lock is being introduced. This lock incorpor-

Continued on page 107



Protecting Locks With Champs

"The Champs shield fits in the lock internally. It serves to protect the lock from attack. There are many shields available to fit a wide range of locks."

What is Champs? Champs is a lock protection device aimed at thwarting break-in attempts by burglars or thieves.

It is a very unique lock shield aimed at covering the reciprocal pin on all deadbolts that are on the market today, excluding the Lori 4500 series. The Champs line also carries the lock shield aimed to cover the retracting ears on the key and knob locksets.

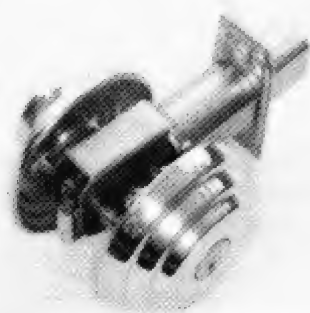
How did the company come about? The product was developed by a pioneer in the lock industry. Knowing that many locks have their weak points, he decided to solve the problem. After a little ingenuity, the Champs lock shield was invented.

The shield will fit all deadbolts, excluding the Lori 4500, and also all key and knob locksets on the market today. These locks include: Abloy, Arrow, Best, Corbin, Dexter, Falcon, Guardsman, Harloc, Ideal, Ilco, Kwikset, Lockwood, Lustre Line, Medeco, Parker, Russwin, Sargent, Schlage, Security Hardware, U.S. Lock, Weiser, Weslock, Yale, and more.

The manufacturer is already in production for a shield for the Lori Line which includes the Lori 1200 and 1250 vertical deadbolts, as well as the Segal vertical deadbolts 666, 668, etc.

The very first lock that the Champs shield was installed on was the high security deadbolt. It offered a high percentage of deadbolt protection. This is encouraging because a highly sophisticated method of burglar lock by-passing has been uncovered.

In previous years, the burglar used a crowbar, screwdriver and hammer. This method is fading out. The new wave of burglary is using a battery operated drill and an ice pick. It is not as noisy as a hammer and they can penetrate a high security deadbolt in as little as seven seconds. These methods are very sophisticated and can go undetected for a long time. After the burglar penetrates the lock, the lock can be easily



Shown is the CHAMPS model CD-1 installed in an Arrow 921-K deadbolt.

re-locked and a little wood filler used in the holes.

A lot of companies use these high security locks, including all top level government agencies. When the Champs shield is installed on these locks it will destroy drill bits, deter attempted break-ins, and protect lock security. It will deter any unwanted entry in evidence rooms, restricted areas, private residences, etc.

The Champs lock protection shield comes in a US26D finish. Model CD-1 fits all deadbolts, Model CS-21 fits all



The product line is easily installed in a variety of regular and high security locks.

knob lock sets with a 1" bore, and Model CS-27 fits all knob lock sets with a 3/8" bore.

The Champs system is an economical alternative for the customer using lower priced deadbolts and keysets. Champs will also upgrade your existing deadbolts and keysets. The Champs protection shields fit in the lock internally and are not seen, therefore, no unnecessary holes ruin the beauty of your door. All the Champs lock protection shields are installed through the bored lock hole 2" or 2 1/8" first, then secured

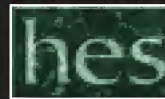


The shields protect against burglary attack on locks.

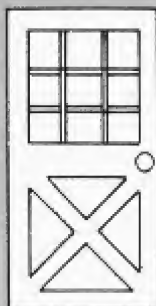
when the lock is installed.

John McKernan, the inventor of these lock protection devices, holds several patents on lock security devices which include a fully enclosed tamper-resistant deadbolt lock mechanism. John resides in Bourne, MA with his family, and is very experienced in the lock security field as demonstrated at various trade shows.

For more information contact: C.H.A.M.P.S. Mfg., P.O. Box 473, East Wareham, Massachusetts, 02538, 800-828-4600. ■



or hardw



HARDWARE

DOOR

In this section you will find a variety of items that all have at least one thing in common...door security. Each of these products in some way concerns itself with keeping "them" out. Whether it is a new kind of screw, a new lock, or other protective device, door security hardware is really at the core of locksmithing. If you require more information about any of these products, circle the appropriate number on the Rapid Reply Card.

There is more to door security than locks, although they certainly are the primary security feature. Still, a lock is only as good as the door it secures, and the frame/jamb into which it fits. While you are installing

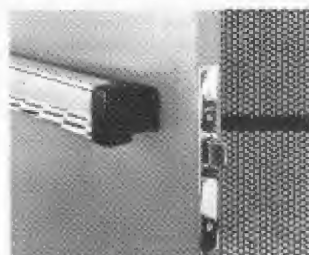
fine locks, make sure that the door and frame are adequate for the job. If not, sell and install some door and frame reinforcement hardware. For an example of such an item, see some of the products featured in this section.

Allow us to take this opportunity to once again ask you to take the extra trouble to *sell* a little bit more on your next service call. Once you have made the trip, it pays to take home a little extra profit. Reinforcement hardware and upgrading of current security are two methods to increase your dollar volume per call. This is good for you, your distributor, the manufacturer, and ultimately, your customer. **MG**

Adams Rite Fire-Rated Line

Adams Rite Manufacturing Company has introduced the Series 3000 fire-rated exit devices, which come in a variety of latching and mounting options for wood, metal and glass doors including rim mounted, concealed vertical rod, mortise type and surface vertical rod. The exit devices feature beautiful, full-width push bars with no-load actuation of eight pounds anywhere along the bar.

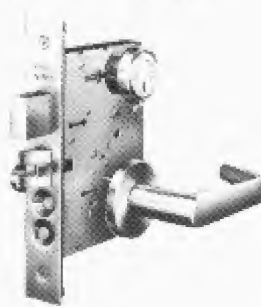
The Series 3000 devices have the following range of U.S. standard finishes: brass, bronze, and stainless steel in full-polished and satin.



Arrow Adds Mortise Lock

Arrow's new A & B Series mortise lock is recommended for use in institutional and commercial buildings where security, durability and low maintenance are required. It is available in six functions and designs on the V.I.P. delivery program.

The lock features a full 1" throw solid brass dead-bolt with a hardened steel pin, and a 3/4" brass anti-friction latch bolt. In addition, both series are reversible and have a standardized case for uniform mortising.



Chrome Specialties' Security Bars

A security bar for hollow metal exit doors and frames is available from Chrome Specialties, Inc. with two bolts and two holes it installs in minutes and fits most 36" door models. All hardware necessary for installation is included with the bars and you can choose from zinc plated or chrome plated.

The many applications include rear exit doors, shopping centers, office buildings, factories, malls and warehouses.



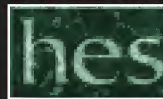
Dexter Expands Designer Series

Dexter by Master Lock has expanded its Designer Series with the elegant, new "St. George" entrance handle.

Designed to complement traditional, upscale homes, the St. George features solid brass and steel construction and comes with a bright brass or antique brass finish.

The St. George fits 1 1/8" or 2 1/8" crossbores and 15/16". The handle may be supplied with a "DC" keyway that is compatible with Schlage, Baldwin, and other C-type keyways.





Domino Adds To Keyless Line

Domino Engineering Corp. has announced an addition to its keyless entry products line. The new passageway door system includes the patented 10-digit touch pad, wall plug-in transformer and timer control box. The door system adapts to 12 and 24-volt door strikes. Primary applications include situations where only an on/off or open/close function is required.

The keyless entry pad is easy to install with only two wires feeding inside.



Door Lock Co. Secur-A-Door

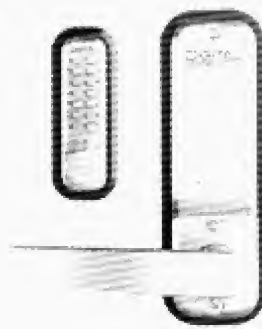
The Door Lock Co., Inc. introduces Secure-A-Door Lock. Most exterior metal passage doors need additional locking hardware. To meet this need, 2x4's with brackets or a metal bar are currently used. With the Secure-A-Door Lock, a unit is permanently affixed to the door eliminating the need to remove and replace the cross bar every time the door is opened (unlocked) and closed (relocked). The unit also adds additional strength to doors.



DSI Offers Digital Line

The Digital Door Lock line is suitable for residential and light commercial applications. Seven different models offer a choice of: surface or mortise installation, 2 3/4" or 2 3/8" backsets (deadbolt or dead latch), full sized lever handles, hold-open button and 10 different finishes to choose from.

Mounting over pre-existing 2 1/8" bore holes is no problem with an optional escutcheon trim plate.



Dorma Bulletin Highlights Closer

A four-color bulletin from Dorma Door Controls Inc. describes the Dorma TS 77 Series Closer.

Benefits of the new TS 77 surface applied door closer include its compact design, long-term dependability and economical cost. The TS 77 is well suited for economy grade applications and locations where larger closers would obstruct the aesthetic design of an opening or where space is limited, (i.e., hotels, condominiums, or apartments).



Dyna Lock 7000 Series Keyswitch

DynaLock Corp. introduces its new 7000 series keyswitch consisting of 13 models affording maximum flexibility to fit most any controlled access application.

The 7000 series keyswitch is installer adjustable to accommodate standard mortise cylinders and has a choice of momentary, maintained, single or double pole contacts plus time delay, in the center, or left or right of center switch positions.



Frame's New TechniKey Line

The TechniKey line of access control push-button units from Frame Inc. are now being shipped in flush mount and surface mount versions designed for convenient wall mounting. The units lay flat against the wall surface and are therefore ideally suited to tunnels, interior corridors, and other situations where space is a premium.



Hiawatha's Nylon Color Push & Pulls

A new line of Nylon Color Push & Pulls is offered by Hiawatha, Inc. Available in six standard colors, these pulls offer the user a heavy duty design while providing continuity to the color coordination of surrounding interior design. The nylon pulls can be used in exterior or interior applications.

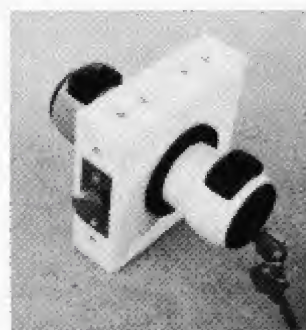
Pulls are available in five standard shapes and two diameters, 1-15/16" and 1-9/16". Pulls and Push combine to be used on glass, wood or metal door applications.

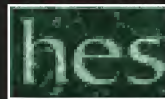


Iseo's New Italian Locksets

The contemporary, decorator-styled Premi-apri locksets, manufactured in Italy by Serrature Meroni SPA are now available from U.S. Division: Iseo Locks, Inc., Hialeah, Florida. The Premi-apri locksets do not rotate but operate by a slight touch of a built-in, lever-action button.

This push-button operation offers several advantages such as, opening doors with a touch of your elbow when arms are full of shopping bags.

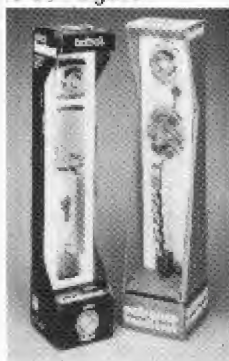




Newly Designed Kwikset Packages

A new package design which showcases the interior knob design as well as the entrance handleset, is now being introduced by Kwikset Corporation.

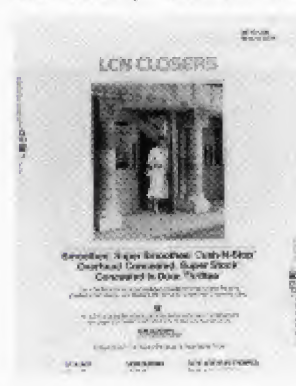
In addition to displaying the interior knob, Kwikset's new handleset packaging is made of heavier corrugated for better product protection, gives complete installation instructions on back, and has four-color printing on glossy paper laminated to the corrugated.



LCN's 1989 Sweets Brochure

This 16 page brochure presents LCN's full line of concealed, surface mounted, and life safety closers. Photos, features, application details, and specifying information are provided on these heavy duty door control products.

Featured is the record setting Smoothee closer series. Those closers cycled over 10 million times in an independent test exceeding the ANSI standard by a factor of 6.5.



The Leveron From Lindustries

The Leveron from Lindustries Inc., is a universal lever adaptor produced in the U.S.A. and marketed by Lindustries, Inc. Weston, MA.

Utilizing a special thermo-plastic and a unique fastening principle, Leveron can be installed over any doorknob within two minutes. It features a split-ring connector placed behind the knob and tightened with a positioning wrench (provided) against high grip gaskets within the handle assembly by a simple turning motion.



Key Switches From LSE

Locknetics Security Engineering announces the introduction of its 643 and 644 Series Heavy Duty Keyswitches which meet the most demanding of applications.

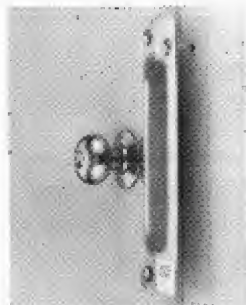
Operating with an optional 1 1/4" mortise cylinder, the 643 and narrow style 644 have been designed with hardened steel parts, positive stops and die cast body to meet the rigors of high-use applications.



Door Lock Device From Latch Gard

The "Latch-Gard" is an easily-attached door lock security device manufactured by the Latch Gard Co., Inc. The tamper-resistant device is constructed from heavy 12-gauge plate steel and features a jamb pin to prevent prying the door open. Because the device installs with carriage bolts exposed on the inside, the lock covering cannot be loosened from the outside.

Only three holes are required for installation and the Latch-Gard can be used with cylindrical or mortise lock sets.



Lori Introduces Brassworks

Lori Lock has recently released a colorful brochure of its new Brassworks collection of designer door hardware.

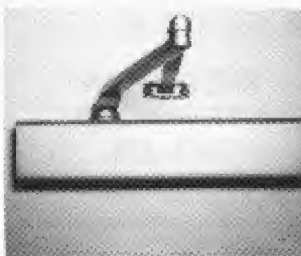
The Brassworks line comes in a wide assortment of styles from classic to contemporary, all beautifully crafted in solid brass and suited for residential and business customers both. The brochure features color photographs of every design in each of the four series: Traditional, Narrowline, Mortise, and Interconnected locksets.



Norton Surface Door Closers

Norton offers a full line of overhead and concealed closers for interior and exterior doors. Norton's comprehensive line ranges from the 1700 closer to the 7700 Series.

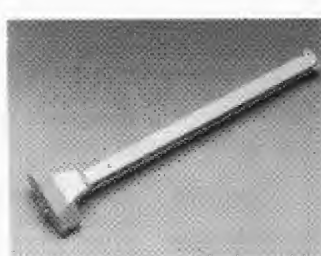
Special features include backcheck, delayed action, hold open and hand-capped options, as well as, a variety of arms to meet any door or door jamb conditions. Norton closers are also available in a wide variety of architectural finishes.

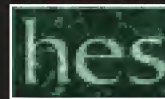
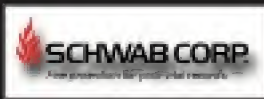


Reed's Economical Exit Devices

Reed Exit Hardware has introduced its 4000 Series, a new line of economical flat bar exit devices designed for light commercial applications.

The Grade 1, 4000 Series includes a full line of rim and surface vertical rod devices. Special features include: removable, rust-resistant case cover to permit easy maintenance and inspection; a versatile design which allows the hand to be reversed in the field, and a variety of trim for both the inactive and operating doors, including rim cylinders.





Rixson-Firemark Floor Closers

Rixson-Firemark produces a full line of floor closers with features that insure complete control of single or double-acting doors. The Rixson line ranges from a shallow-depth closer that will fit in concrete slabs as shallow as two-inches thick to a heavy-duty floor closer capable of handling doors up to 1,250 lbs.

Rixson floor closers are available in a variety of architectural finishes, or they may be specified with a special cover pan to insure total concealment.

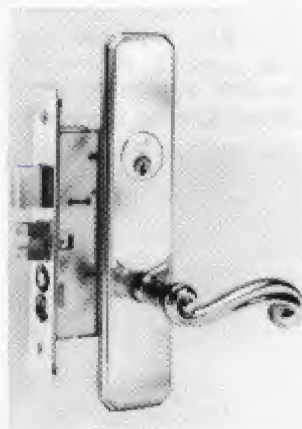


Omnia Expands Mortise Locksets

Omnia has expanded its line of mortise entry locksets with solid brass trim to a total of 40 different design options, with four finishes available.

Knob and lever trim may be co-ordinated with interior latchsets to carry a design theme from the interior to the front entry.

Locks are UL listed and conform to ANSI and BHMA standards.



STI Announces Exit Stopper

Exit Stopper is a highly visible stop-sign alarm to prevent unauthorized use of fire/emergency doors. It is being announced by Safety Technology International, Inc., of Waterford, MI.

Ideal for stores, libraries, restaurants and other public buildings, Exit Stopper is a completely self-contained system. It comes complete with a choice of tape or screw mounting, a 9 vdc. battery, and a keyed locking mechanism for easy deactivation.

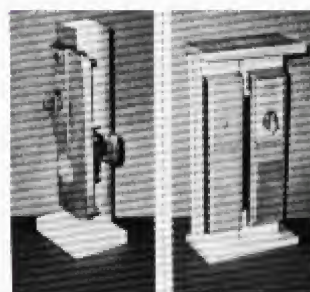


Scotsman Security's DorGard™ Products

The DorGard™ Line from Scotsman Security Products offers aluminum narrow stile storefront door security in a variety of applications.

DorGard I fortifies rim or flush mounted mortise cylinders. DorGard II is a steel box which completely encases the mortise cylinder of a narrow stile aluminum door. An extension of that, DorGard III protects the latch area as well.

DorGard IV and V offer total protection for double and single narrow stile doors.



Sealeze Offers Therm-L-Brush

Sealeze has the solution to ill-fitting door seals which crack over time, allow air leakage, and need compression to seal. Easy to install, Therm-L-Brush seals. These seals feature a nylon filament design and seal without compression.

Therm-L-Brush provides an effective seal which restricts air, dust, fumes, insects and weather from entering any space. When properly installed, it will not interfere with door operation.



Securitron's TSB-1 Touch Sense Bar

The TSB-1 Touch Sense Bar is an architecturally attractive exit bar with no moving parts that releases an electric lock by electronically sensing human touch.

The TSB-1 can also be used for immediate alarmed exit, or delayed alarm exit under NFPA 101. And unlike mechanical exit bars, the TSB-1 cannot be manipulated from outside the door with a coat hanger wire.

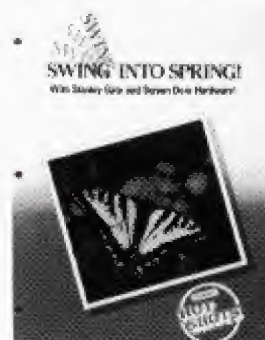
It is available in standard size for a 36-inch wide door, modifications to 48 inches for your specific needs.



Stanley Hardware's Hot Shot™ Promo

Stanley Hardware's new Hot Shot™ promotion features gate and screen door hardware. The promotion kicks-off March 15, just in time for the key season when do-it-yourselfers get their yards and homes in shape.

This second quarter 1989 promotion features special savings on eight top-selling gate hardware products, including 4½" latching hasp, gate latch, slide bolt, thumb latch, tee hinge, strap hinge, 11" gate spring and gate pull.

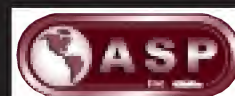
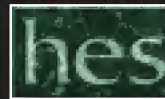


Soss Offers Electric Hinges

Henry Soss and Co. has introduced a series of three electric hinges designed for full mortise applications. The new series includes the electric monitoring hinge, the electric through wired hinge and the electric through wired with monitoring hinge.

The electric monitoring (EM) hinge contains a concealed switching means of the single pole double throw type (SPDT), which senses door opening. The electric through wired (TW) hinge is used where continuous wires are required to pass from the jamb through the hinge and into the door in an invisible manner.

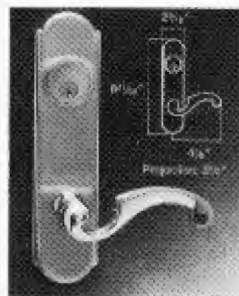




Valli & Colombo Fits Yale

Valli & Colombo, has announced that all Valli & Colombo, Forges and Fusital door handles have been adapted to fit the Yale line of mortise locks, which are ANSI and UL approved.

With manufacturing and design facilities in Italy, Valli & Colombo markets and distributes a full line of 36 distinctive door handles and numerous coordinated hardware accessories in the United States. Many of the handles have been designed by worldclass Italian architects.



Von Duprin's Model 900

Von Duprin, Inc. has introduced the Model 900, patterned after the firm's proven 99 Series touch bar device.

The new model is fully encased in stainless steel (US32 polished or US32D satin finish) and is specifically designed for rugged applications. It is available in three- or four-foot lengths, for rim, mortise, surface vertical rod or concealed vertical rod mounting. The Model 900 is UL listed for Accident Hazard and Fire Exit Hardware, "A" label.



Weslock Introduces Savannah Knob

Weslock, a division of J.P. Industries, introduces The Savannah knob. Solid construction and polished brass make the Savannah a perfect choice to intensify any decor.

The design of the Savannah is a smooth, even inset on the face of the knob. This delicate impression provides a subtle touch reminiscent of traditional decor.



Yale Cylindrical Key-In-Lever

Yale Security Inc. has introduced the AU 5400 Series, a heavy duty cylindrical key-in-lever lockset with the Augusta lever design. It is a suitable retrofit product for upgrading in order to meet handicap codes in doors pre-cut for cylindrical locks.

Yale's AU 5400 is available in a variety of functions and finishes, and offers the following special features: latchbolt projection of 1/2"; a standard 6-pin cylinder, with 7-pin and high security cylinders also available.



Fire/Life Safety From Dorma

The Dorma DC 140 fire/life safety door closer is available from Dorma Door Controls Inc. for use in hospitals, hotels, schools, nursing homes, facilities for the aged, etc.

The DC 140 surface-applied closer incorporates an integral photoelectric smoke detector and an electromagnetic holder/release device. The unit is capable of interfacing with existing fire/alarm control system or can function alone as a self-contained monitoring unit.



Hiawatha's Door Pull

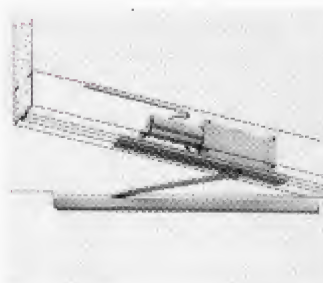
Hiawatha, Inc. introduces the HG-151 spherical door pull. The new HG-151 Series pulls are available in stainless steel, brass and bronze with polished or satin finishes.

These pulls are noted for their heavy duty design and modern form to fit today's specialized glass, metal or wood doors. The model HG-151 has 12" center to center dimensions with a 3" projection from the door. Available in sets, pairs and back-to-back mounting, these pulls project a custom finish to all applications.



LCN's Security Closer Brochure

LCN introduces a complete line of concealed and surface mounted door closers for high security applications. Photos, features, application details, and specifying information are presented in this all new 8 page brochure. All of the security closers are based on the heavy-duty Smoothee cylinder that has exceeded the ANSI standard of 1.5 million cycles by a factor of 6.5 in independent tests.

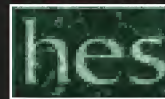


LSE Heavy Duty Pushbuttons

Locknetics Security Engineering introduces the 601 and 602 Series Heavy Duty Pushbuttons designed to withstand high use applications.

Moving parts are of hardened steel, with positive stop action to prevent stress or over-travel of switch components. Pushbuttons are available in single gang unit 601, or narrow style 602 series for installation on 1 3/4" narrow style frame applications.



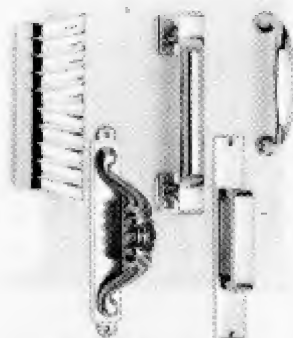


Omnia Brass Door Pulls

Omnia's line of solid brass architectural hardware includes a broad range of long door pulls, some with a height of nearly 12 inches.

Styling ranged from traditional to contemporary, and finishes include US3 (polished and lacquered brass) and US26 (polished chrome).

Omnia's solid brass door hardware products are sold through distributor's coast to coast.



Securitron Offers Magnalock

Securitron offers the power and sophistication of the Magnalock. Securing any door with an immovable force of 1,200 pounds, this compact electromagnet comes housed in a stainless steel case, has no moving parts and operates on 3 watts of DC power.

With instantaneous locking, and no residual magnetism, this security system has a fail-safe power design. Installation is done easily with just four mounting bolts, the Magnalock is weather and vandal resistant and comes with a five year, no strings warranty.



Valli & Colombo's New Hardware

Valli & Colombo (U.S.A.) Inc. introduced its new line-up of cabinet hardware, coordinated accessories and matching door lever sets for 1989 at the Kitchen/Bath Industry Show.

The line-up included their new briarwood and solid brass hardware series along with contemporary cabinet hardware and door lever sets in a new "light black" finish.

Weslock Introduces New Access Lever

Weslock, a division of J.P. Industries, introduces the new Access Lever, a practical lever for the handicap market, with a decorative design.

It is made of sturdy construction with an extended handle curving back toward the door for easier gripping. This unique design allows a handicapped individual to better balance his weight before opening or closing a door. As well as being practical, the Access lever is also a stylish addition to any decor.



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Electronic Locking, Part I

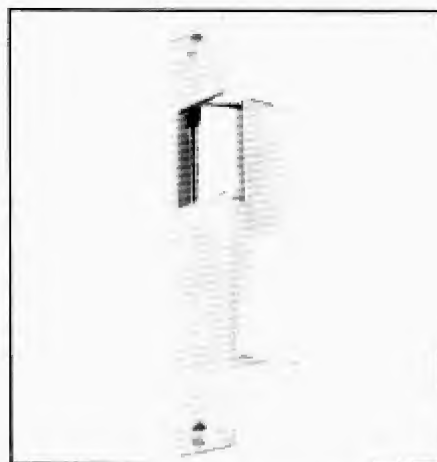
"In this article we will examine common types of electronic locks, along with application and installation considerations. It's easy!"

by Allan Colombo

The use of electric locks in commercial and multiple family dwellings has increased over the last 10 years. Along with this growth has been the need for a better understanding of how electric locking mechanisms work and the various types available.

This is the first of two articles. In this first discussion, common types of electric locks will be examined, along with application and installation considerations. In article two, the manner in which these devices work, as well as simple circuits, will be addressed.

The **electro-mechanical strike**. In photograph one, one of the most basic



1. The standard electric door strike.

electric locking mechanisms used is shown. This electric strike comes in various shapes and sizes, meeting structural needs in wood and metal jamb construction. The operating principle behind these locks is that of electro-magnetism, powering up a coil of wire that, in turn, pulls a release lever. This allows the door's bolt, or latch, to pass by the mechanism's strike plate. This mechanism is installed in the jamb of the door. It essentially takes the place of the strike plate, making control of access possible at a remote location.

The manner in which the standard electric strike is installed will vary with the exact type and manufacturer used.



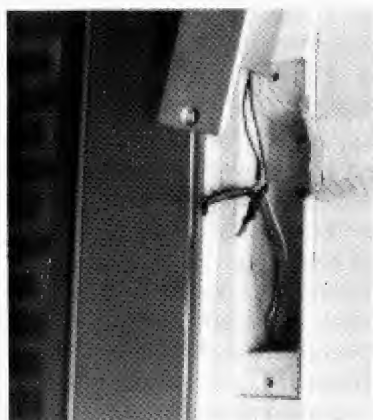
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In photograph two the first and second stages in the installation of a common strike is illustrated. By holding the strike up to the jamb, or using a template, the strike's position is marked with a pencil. Now the installer merely hollows out a section of the jamb so the strike fits snugly.



2. Hollow chiselled out for strike installation.

There are many ways to do this, but the most popular way is to use a drill bit with a diameter near to that of the portion of the strike that fits in the jamb. By drilling out the back space, the majority of the hollowed out area can be effectively attained. The remaining portion can simply be removed by a sharp chisel and hammer. Once this has been achieved, the installer merely chisels out a small portion of the jamb so the strike fits nearly flush.

Photograph two also shows that the wires are brought into the hollow section by drilling a hole either in the back or side of the hollow area.

After the wires are in place, they are tightly twisted to those of the strike mechanism. If at all possible, the installer should solder them, to assure that moisture and air cannot tarnish and disrupt the connections. If soldering cannot be achieved, the locksmith should twist the wires very tightly and place electrical tape over them, tamping it down tightly onto the connections. This will help to seal the connection from moisture and air. Once this has been done, the strike can be inserted into the hollowed out area. Using bevelled screws, the strike is then securely fastened to the jamb of the door.

There's always more than one way to attack a problem, and another alternative is the electrically operated mortise deadlatch, shown in photograph three. Instead of installing a strike mechanism in the jamb of the door, the locksmith



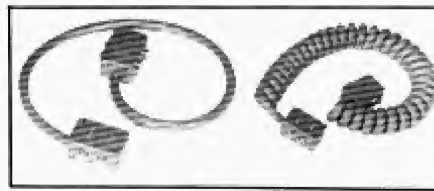
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3. The electrically operated mortise dead-latch.

can easily replace the mortise cylinder lock hardware with that of the electrically released type. This type of electric lock depends on an internal latch that prevents the mortise mechanism from turning freely. This basically locks the door from the lock mechanism point of view. Wires must be installed with the hollow of the door, emerging from the hinge side with a special attached flexi-



4. Electric door cords.



5. Mortise mounted right angle bolt.

ble cord. (See photograph 4.)

One other basic type of electromagnetic locking device is pictured in photograph five. This is a right angle

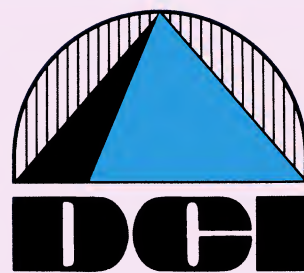
electric bolt lock, capable of exerting additional door holding power by inserting a bolt directly into the door. The right angle mechanism is basically a solenoid that either locks or unlocks the door by inserting a center steel bolt into the edges of the door.

Door closure sensing switches. In cases where bolt type electric locks are utilized, it becomes important to integrate the relocking of the bolt with the closing of the door. If the bolt in our last example were to re-activate itself, sticking outward from the mechanism, the door would merely bump up against it; failure to close would result, defeating the reason why it was installed in the first place.

To remedy this, a door closure sensing switch is installed, either on the door itself or inside the locking mechanism. Basically, this switch prevents the door locking mechanism from re-engaging until the door is fully closed again.

Looking at photograph six, the switch shown is mounted on the top edge of the door. As a surface switch, it utilizes magnetism as its primary means of operation. The plastic section, with the screw terminals, mounts on the stationary door frame; the other section mounting on the door itself.

Mounted across from one another,



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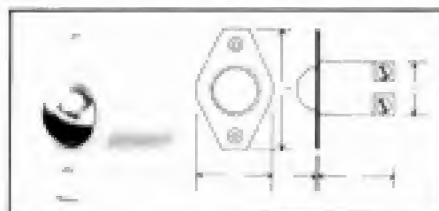
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6. Surface mounted door closure sensing switch.

the moveable section contains a magnet that exerts a force on a small switch (reed switch) mounted inside the stationary section. When they are close to one another, there is no internal connection between the terminals on the switch. The switch, in fact, is held in an open position. When the door is opened, the two sections separating from one another, the reed switch closes, just like turning "on" a light switch. In this fashion position of the door is sensed by circuitry attached to the switch.

There are other types of door closure sensing switches, such as the recessed model shown in photograph seven.

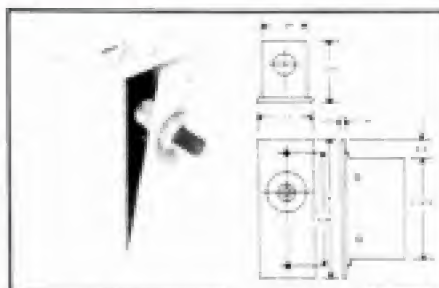


7. Recessed mounted door closure sensing switch.

This switch requires a 1/4" hole drilled into the door jamb. Wires are brought into the hole either directly from behind, through the inner wall, or by drilling a hole from the edge of the trim into the switch hole. This switch requires the installation of two wires to the back of the switch by two small screw terminals. Most of these switches use small terminal plates with screws that require the stripping and insertion of the wire between the switch and the terminal plate. By merely tightening the screws, the wires are securely fastened to the switch.

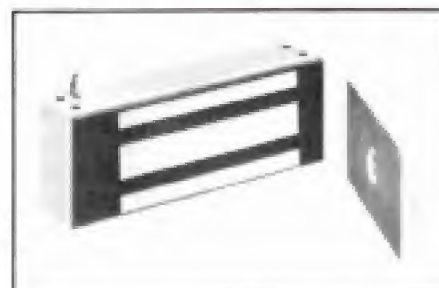
Another hidden version of the door closure sensing switch is pictured in photograph eight. This switch mounts in the hinge side of the jamb. By hollowing out a section of the jamb to match the dimensions of the switch's back box, no one would ever guess a door closure sensing switch was employed.

The electromagnetic door lock. As the field of electric locks continued to grow, new and improved devices found



8. Hinge mounted door closure sensing switch.

their way into the market. The electromagnetic door lock was one of those items that, once it caught on, has



9. The electromagnetic lock.

become very popular with installers.

Photograph nine pictures an electromagnetic lock. The large portion,



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on the left, is the electromagnet, and the plate on the right completes the locking process. The electromagnet mounts on the stationary frame, and the plate to the door itself. In this fashion, when power is supplied to the electromagnet, a magnetic field is set up that attracts the steel plate on the door. This attraction is so great, that the holding ability of this lock is probably greater than that of a man holding it from the other side.

There are several advantages to this type of lock over that of the electric door strikes discussed earlier. The first is the lack of any moving parts to wear out. Another advantage is the simplicity of the installation. By merely drilling and fastening bolts and screws, this type of lock is easily installed. The third advantage is the manner in which the door is secured. With the standard electric strike, someone could easily enter the building by using a small screwdriver; where-as the electromagnetic lock maintains security from the inside of the premises. With a holding power of 1,000 to 3,000 pounds, this lock has proved to be one of the most popular locks in the industry.

Providing egress from inside the

structure. Most states and local fire authorities have fire regulations that prohibit the locking of any public exit without a means of rapid egress. Panic exit hardware was devised to remedy this situation, allowing the owner of the structure to secure the door from outside, yet allowing someone inside to easily exit through the door.

When electric locks are installed, some of them require a means of egress, other than the panic hardware or lock set, which may have been eliminated with the installation of the electric lock. When using the bolt type strike and the electromagnetic lock, a means must be provided where-by the mechanism can be temporarily released from the inside.

This is accomplished by an egress switch; two models are shown in photograph 10. All a person must do to exit is press the button on the plate, and the lock is released. In this fashion the person attempting to exit can easily leave the building. These switches can be connected to an alarm or door monitoring system if necessary.

Entry methods. Entry of the structure, when someone is there, is usually provided by an intercom system. The caller merely presses a button on an



10. Egress switches.

outside speaker. The individual inside the building identifies the caller by using the intercom "talk" and "listen" buttons. Once identity has been established, the caller is provided entrance by the press of a button. The electric door lock then allows the caller to pass through the door.

What about those times when no one is inside the building? How does management get into the structure at the start of the day? Let's take a look at the ways that this can be accomplished:

With standard electro-mechanical strikes, management only needs to insert a key into the lockset, unlocking and opening the door as normal. The use of a key on the electric mortise deadlatch is all that's necessary. The key merely by-passes the electric locking portion of the mechanism, allowing



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GM Expands V.A.T.S.

"In 1989 a dramatic expansion of the system includes VATS as standard equipment on six GM models. In some cases, the system is also called 'Pass Key.'"

General Motor's V.A.T.S. (Vehicle Anti Theft System) is in its fourth model year of production. In 1989, a dramatic expansion includes VATS as standard equipment on six GM models.

VATS effectiveness in preventing theft has been dramatic. A 45% theft decrease in VATS equipped 1986 Corvettes has been achieved. The theft rate decrease has prompted an insurance rate improvement from some insurance carriers. This is good news for the manufacturer, the auto owner and the insurance industry.

Testing and Expansion. VATS did expand in 1988 on some eight thousand special edition Pontiac Trans AM GTA models. The system name "PASS-KEY" was used in place of VATS. In 1989, six GM model vehicles will use the VATS/PASS KEY system. These cars include all of the following models: Chevrolet Corvette, Chevrolet Camaro, Pontiac Trans AM, Cadillac Eldorado, Seville and Allante.

What is VATS and how does it work? VATS or PASS KEY is an electro-mechanical locking system. An on board computer module is programmed with one of fifteen resistor pellet values. Keys have a similar value resistor pellet chip embedded in the key

blank. Key cuts are standard GM depth and spacing. The lock cylinder is similar to other GM cylinders with the exception of a wire harness that connects the lock cylinder to the computer module through the steering column. Three different lock cylinder styles are used depending upon application.

Through the wire harness, the on board computer module reads the resistor pellet. If the module reads the correct pellet and the mechanical cuts are correct to turn the cylinder, it permits the car to start. If a thief has a correct mechanical cut key but an incorrect resistor pelley key, the module senses an infraction and shuts down the fuel and electrical system for five minutes.

New module in 1989 (Tested in 1988). The on board computer module, now in use, has a programming feature not used on Corvettes pre-1989. Corvettes 1986-1988 had modules with a pre-assigned resistor chip value. Pontiac Trans AM GTA's in 1988 used a module which was programmable with the first key inserted at the factory. Programmable modules are being used on all VATS equipped vehicles in 1989 and beyond. The importance to the locksmith is that pre-programmed modules had a sticker on the back side noting an

option code or resistor value number. Programmable modules do not have stickers showing a resistor number.

Special tools needed. A VATS interrogator from Kent Moore Tool Company is the preferred service tool used by General Motors at their factory and by their dealers. Briggs & Stratton uses the interrogator for test purposes at their factory, and recommends its use to locksmiths.

The interrogator permits the locksmith to measure the resistance value of both key blanks and the computer module. In a "lost key situation" you have no choice but to interrogate to determine the correct resistor value. The resistor value does not appear on any paperwork the dealer can supply. If you're lucky, the customer will know the resistor value.

Special service parts needed. Your authorized Briggs & Stratton locksmith wholesaler can supply you with replacement lock cylinders and key blanks. Fifteen different key blanks with resistor values stamped in the "knock out" are available for after-market service. These part numbers are B&S 594201-594215. Lock cylinders by application are shown in illustrations one, two and three. ■

B&S #700754
For Corvette, Camaro and Firebird.

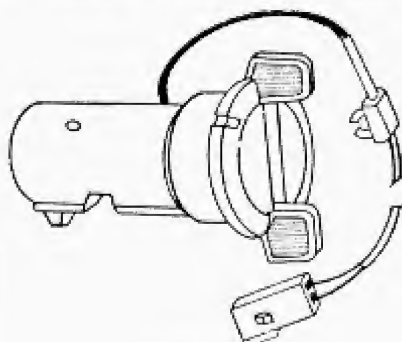


Illustration 1

B&S #700930
For Cadillac Allante, Seville, Eldorado

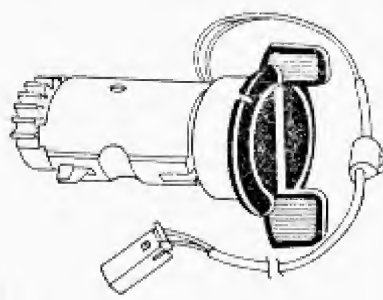


Illustration 2

B&S #700938 - Push button to off
Camaro and Firebird models.
For manual transmission Corvette.

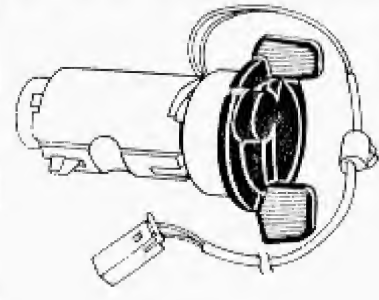


Illustration 3



Opening A Major Safe

"The manager hit the safe handle with a hammer. When it didn't open, he hit it again and again. This turned out to be an expensive lesson for the customer."



by Dale Libby

In this article, Dale the magnificent, discusses a non-labeled money chest that is used by chain and franchise-type fast-food restaurants. The chest in question is a TL-30 rated chest manufactured by Major Safe.

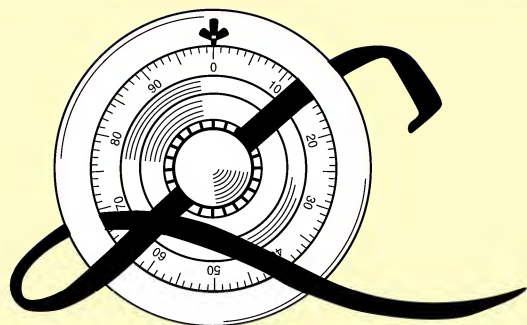
Major safe Company of California turns out a very good line of safes and

chests. Major also makes custom safes to customer standards. Many fast food chains have a specific list of standards and wants, and Major conforms to the customer's wants and needs.

The safe or chest, in most instances, is not labeled on the older type units. The specific unit in question is a double-door storage chest, with a storage compartment above for change or bags. It is usually a solid door with a combination lock securing the unit directly to the edge of the door. The bottom door is heavily armored with relockers and hardplate, and with a group II combination lock that is also protected by a relocking trigger within the lock itself.

Major manufactures many safes with the same configuration but makes the doors either right or left-handed. If you know the measurements for the left handed door, then the measurements will be the same for the right-handed door, just reversed. In photograph one, you can see the standard left-handed mounting pattern with the dial and the placement of the handle. This particular chest, no matter what it is called, is a workhorse of a safe, and I and many other competent safe technicians have quite a time when working on these units, especially when they are relocked and battered.

In photograph two, we see the bolt detent lever centered on the edge of the



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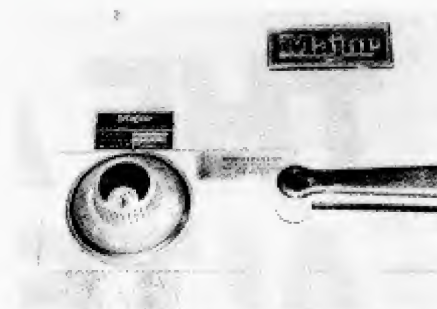
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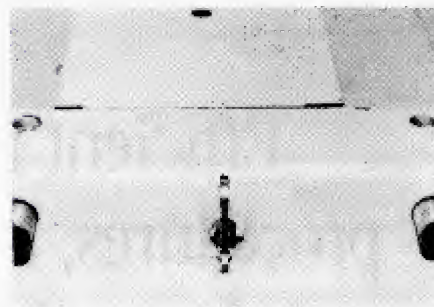
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1. Outside of a left-handed TL-30 chest door.



2. Spring-loaded locking bolt detent lever on edge of door.

door. This spring-loaded lever serves two important functions. One: when the door is opened, it holds the bolts in a retracted position so they will not hit the edge of the frame when the door is slammed shut. The second function is to release the bolts when the door is properly closed. This is an active system. When the handle is turned to the open position, force must be used to cock the handle into the open position. When the door is closed, the bolts are literally shot home by the help of a large spring. This is the spring that usually breaks, and is located under the opening handle cam.

Photograph three shows the back cover of the diabolical Major lock and relock mechanism. It is secured by four 1/4" acorn screws and plastic washers. This cover is easily removed. In photograph four, we see the active "guts" of the lock and the handle mechanism. A lot of thought went into their relock device set up. First, the relock device is held in place by a multi-plated angled piece of sheet metal which is riveted onto the cover plate of the combination lock.

It is important, when repairing this safe with a new lock, to either use the existing back cover with the new lock or to use the proper type of rivets with the new cover. The lock is usually a Sargent & Greenleaf 6730 style of combination lock.

There are three flanges on the relocking sheet metal retainer. Going from right to left in photograph four, the vertical flange holds back the piston on the relocking device. The next metal

didn't have much to offer us on quick, easy ways to attack the locked beast.

Tom had already drilled, using a lot of effort and many drill bits. He had gotten through the Major hardplate to hit the tip of the opening cam, or at least where he thought the tip of the opening cam should be. On this new safe, with no prior knowledge of how it worked or how the insides were laid out, he drilled where I would have drilled to punch the opening cam out of the way to get the unit open. It was the wrong place to drill. (Close, but reversed from where the end of the opening cam was located.)

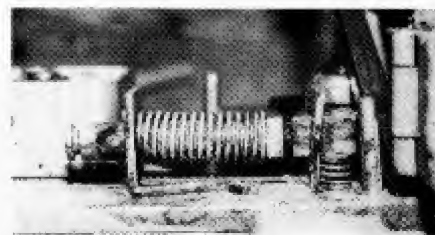
At this point, I opted to punch the combination lock bolt out of the way. I figured correctly because the manager had already punched the dial spindle and the back of the lock case was gone. Both the internal and external relocking triggers and devices were already set off, so why not just punch the lock bolt out of the way to remove it from the lock opening equation? Just one more obstacle out of the way before we went relock hunting.

With great difficulty and loss of drill bits, I drilled for the combination lock bolt where it would be on a left-handed

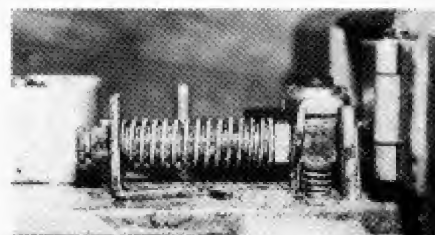
lock, and finally located it and punched it into the lock case. This freed up movement of the handle cam.

Now, all I had to do was to deactivate the relocker and find a way to move the vertical lock bar up to withdraw the lock bolts. I knew the position of this bar, having worked on a somewhat similar unit a month before. I purposely avoided the hardplate, and drilled a hole near the bottom of the door through soft steel angling for the bolt bar. I hit it correctly the first time. I then drilled a small pilot hole in the bolt bar itself so when the time came, I could raise or punch the bar up to withdraw the bolts. I was now two-thirds of the way to getting the chest open.

Last, but not least, I had to deactivate the double-duty relocker bolt as shown in photographs nine and 10. Let's take a look at this relocking device which is actually in two parts. One part is the spring-reloaded relocker bolt, and the other part is the flapper. The relocker flapper is active at all times; the flapper moving every time the opening lever and cam are moved. When it is held into the cutout in the vertical bolt bar by the spring activated relocker, the



9. Side view of un-activated relocking device.



10. Doubly activated relocker, sideways and up to re-lock shaft.

safe is relocked and will not open.

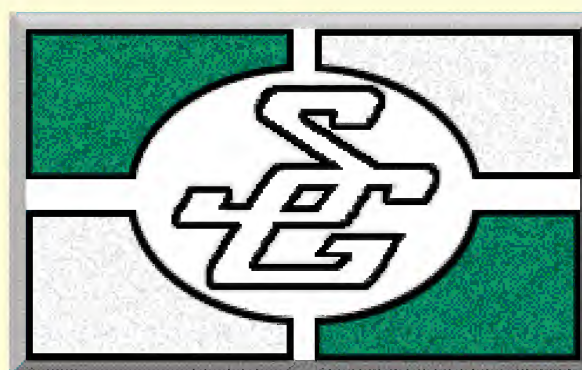
When activated, as in photograph 10, the bolt shoots against the flapper and then is pushed up to hold it into position. There are two springs that accomplish this. The first is the large coiled spring that pushes the shaft against the flapper, and there is another spring under the bolt which pushes the relock shaft up and into grooves that hold it in place.

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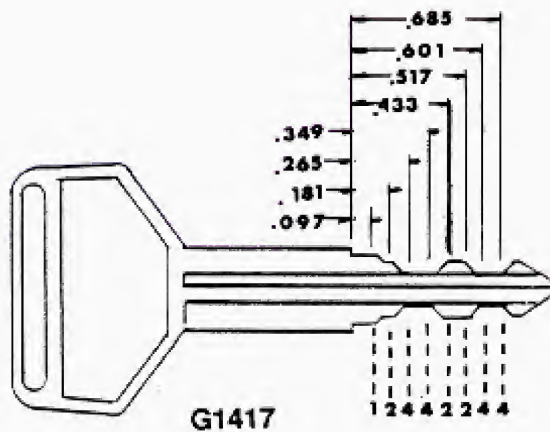
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Toyota Corolla Codes

88+

X0001-2000

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DEPTHS

0 -	5 -
1 - 0.324	6 -
2 - 0.297	7 -
3 - 0.270	8 -
4 - 0.243	9 -

KEYWAYS

HPC/Silca TOY38R
Taylor X174



Editor's Note: These codes will appear in the NFCB 1990 update. Code books from The National Locksmith are the most complete system available. As an owner of our code books, you even get to use our free Code Hotline. See our ad on pages 55-57 for more information.

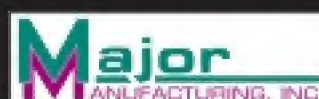
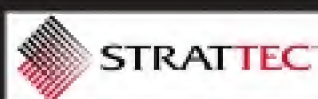


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Keyblanks:

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 Taylor X174
 Curtis TR-40

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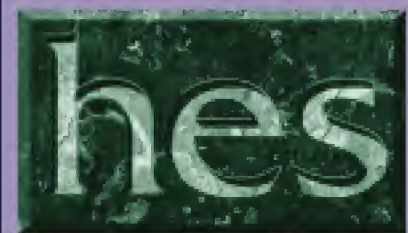
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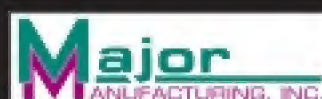
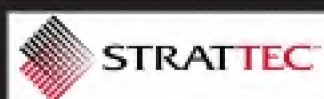
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Taylor X174

Curtis TR-40

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51 22433431	01 22331213	51 32334321	01 31344432	51 43324343
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X0001-2000 TOYOTA

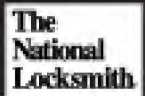
Keyblanks:

HPC/Silca TOY38R

Taylor X174

Curtis TR-40

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X0001-2000 TOYOTA

Keyblanks:

HPC/Silca TOY38R
 Taylor X174
 Curtis TR-40

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X0001-2000 TOYOTA

1651

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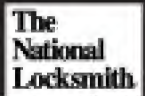


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Keyblanks:

HPC/Silca TOY38R
 Taylor X174
 Curtis TR-40

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Shop Talk

Helpful Questions and Answers

Written by all of the following authors: Jack Roberts, Shirl Schamp, Dave McOmie, Dale Libby, Don O'Shall, and Robert Sieveking.

Send your locksmith questions, along with a self-addressed stamped envelope to: Shop Talk, The National Locksmith, 1533 Burgundy Pkwy., Streamwood, IL 60107.

Q: I was called to make keys for a 1988 Buick Regal. On arrival I found the car had the new square steering column. After disassembly, I found that I could not remove the ignition in order to make the key. What is the secret for this car, and are all square GM steering columns the same? Also the glove box

lock looked totally different to me. Could you explain the removal of this lock so as to make a door key?

I would very much appreciate any and all help on the new GM columns.

*Jerry Mays
Kentucky*

A: The 1988 Buick Regal has the same type steering column assembly as the Beretta and Corsica. These consist of either a tilting type or non-tilting (standard) column.

In addition to your normal tools you need a 9/32" socket driver, a 13/16" socket, a #20 torx driver, and a #30 torx driver. You also need a special tool put out by Borroughs (Kent Moore Ind.), part number BT-8724. It is for removing the keeper ring on the compression spring on the spline of the

Corsica.

On the tilting columns, first remove the horn pad. This requires the #20 torx driver. Remove the wire connecting the horn pad to the column by depressing and turning counterclockwise. Remove the small ring on the end of the spline and then the spline nut using the 13/16" socket. Mount a wheel puller and remove the steering wheel itself. Reach in and remove the horn ring.

The next step is what I think confuses most of us the first time around. The square box-shaped shroud must be removed. Check under the upper right hand corner of the box coming in from that portion of the circle for a screw, and remove it. Then from the bottom side of the column use a screwdriver beneath the shroud and wedge it loose.



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It should just pop off.

Next remove the turn indicator assembly carefully and let it hang, just so that it is out of your way. At this point, make sure the wheel is tilted up as far as it will go. This will give you a little more working area and take as much pressure as possible off the spring you are going to remove next.

In the lower right hand corner you will notice a round metal plug with a square hole in it. You can also see that the hole which the plug is in has two notches, one on each side. These are there to allow the ears on the plug to come through after you have depressed that plug and rotated, aligned, and released the pressure from it. Remove the spring and lay it on a paper towel or something to keep it off the customer's car, because it is packed with grease.

You can insert a light from either the far left side or the bottom just below the lock to enhance your vision. Using a hemostat or tools of a similar design, reach down into the hole, grab the buzzer assembly, and pull it out. Lay it aside. You will see that it comes out as one unit, not in two parts like the old ones. Now the retaining screw that holds the lock in is visible. Remove that screw. (I suggest using a magnetic tip

on your driver.) Then pull the lock straight out, service it or make a key, reverse the procedure and you are through.

On the Corsica, this procedure is basically the same except the #30 torx is required instead of the #20. Also, after you remove the square box-shaped plastic shroud, use the Borroughs tool BT-8724 and remove the keeper on the compression spring on the spline. I understand you can do this without this tool, but the tool is specifically designed for this job and does it well.

Next remove everything that will lift off of the spline, and then remove the two screws on the face of the plate. Lift the plate itself off exposing the buzzer assembly, and remove that assembly. Remove the retaining screw, and pull the lock straight out. Reverse the procedure and you are done.

There is a videotape available through *The National Locksmith* on removing GM steering columns. This would provide additional help to all who do automotive locksmithing. 02

Q: I read your recent article about Pundra locks because a factory that I

do assorted lock work for has obtained a lot of office furniture with these locks on them.

The problem I have is trying to get the proper code number. These cabinet and desk locks have the letter "R" prefixing the number, (i.e., R115, etc.).

I have written the lock company and also have talked to the furniture manufacturer but have had no success. I would appreciate any assistance you can give me in this matter. The Shop Talk column is of much help to me and I learn from it every month.

*Don Dierker
Illinois*

A: The National Locksmith's General Code Book (NGCB) does contain the 101-330 code series for Pundra. However, as you know, locks are now being imported with codes other than that series. Your R code is an example.

These locks came into the U.S. from the Orient. Your code is not presently available, but we are researching Pundra codes at this time. We hope to have more available soon.

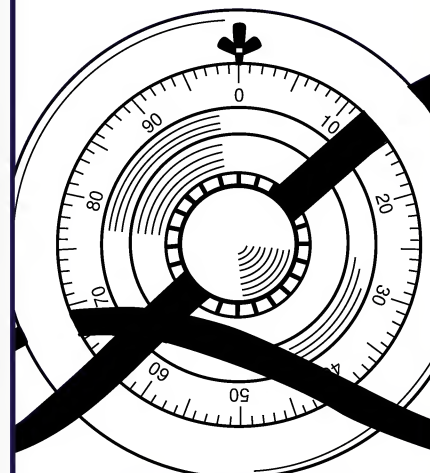
Q: I would like to get some information on the safe shown in photo-



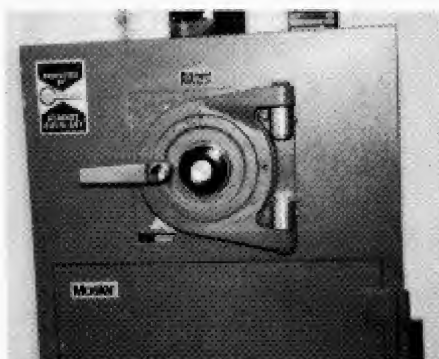
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1. Mosler safe submitted for opening advice.

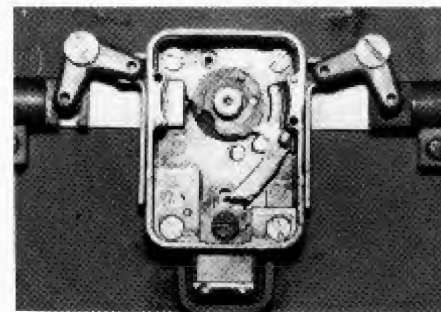
graph one. I am told that the Mosler round safe has an anti-manipulation dial.

I could use all the help and information that you can send me.

Mike Platt
New York

A: Mike, you have what I call a Mosler "new style" lug door. New style is a bit of a misnomer since these doors have been obsolete for almost 20 years, but my intent is to distinguish them from the "old style" doors.

Now that I have thoroughly confused things, let's simplify. Your door is equipped with a 302 mounted VD as shown in photograph two. On these little doors you can drill right through the 8 o'clock bearing plate screw hole, angle in *just a hair* and take the fence off.



2. 302 lock mounted VD, as found on the Mosler safe.

For the record I should point out that Mosler equipped the new style lug doors with two different locking arrangements. The earlier new style doors came with a 120 series lock mounted LH. The more recent, and much more popular new style doors came with a 302 mounted VD.

If the locks are manipulation resistant (MR), identification is a snap. The MR302 goes click-click as you turn the dial; the MR120 pulls out about 1/4" at 0.

If the locks are not manipulation resistant (CD), there are several things to check for making identification. If it is a double door safe, check the lock on the other door. With few exceptions, Mosler used the same lock in both doors. In your case, pull the back off the fire safe and see which lock is in there.

If you can't do this, you can go by the handle. The chrome handle grip is a dead giveaway that there is a 302 inside. A ribbed black plastic handle grip signifies a 120. Beyond this, you can get into esoterica and inspect door stops and other minutia, but this is seldom necessary.

Remove the dial, ring, and bearing plate. Pop a hole through the 8 o'clock screw hole and take the fence off. I have never hit Relsom on this small of a door; it should be easy prey for a Strong Arm bit. Good luck. 04

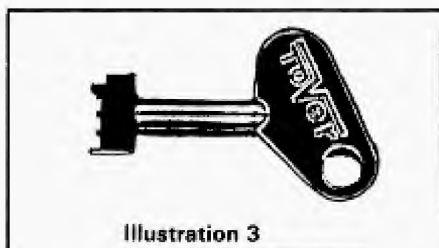
Q: Please try to identify the key shown in illustration three. I think this key and lock have been made in Europe—possibly Germany. If you can identify the keys from a country I would like to

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know the name and address of the locksmith Association for that country.

Ivan Bourgoigne, Jr.
Louisiana

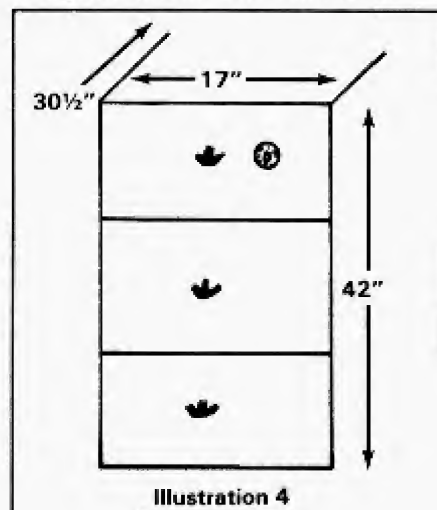
A: You got me on this one Ivan, but you have not given us a lot to go on either. Do you have the lock? If so, what type of lock is it? Is the key round (like Ace or Van)? Does it turn or push? Is this for a lock on a piece of equipment or machinery? Let's challenge our vast reading audience to help us out on this one.

We do try hard to reasearch all *Shop Talk* questions, but we also need every detail possible. Perhaps a reader will come up with a clue, but I would suggest that you write to Jack Taylor, President, The Master Locksmiths Association of Great Britain,

13 Parkfield Rd., Northolt, Middlesex, England, UB5 5NN. If this key is from Europe he should be able to furnish complete information.

Thanks for writing to *Shop Talk*. We will keep looking and would appreciate hearing from you if you get any additional information. 03

Q: A customer brought in a fireproof file cabinet with a combination lock and pushbuttons. The manufacturer is



Hercules and the cabinet has the number 20436 on the left corner on top.

I would appreciate any help on how to get the drawers open. When the customer purchased it at an auction they did not have the combination. Illustration four is a rough sketch of the file.

P. Burrera
Texas

A: There are a couple of ways to approach this container. This is the older series manufactured by Meilink. The new series is called the Magnum. You could call Meilink at (419) 877-5352, ask for customer service and give them the serial number. This just might get you the correct combination and you should have no trouble picking, impressioning, or otherwise opening the plunger lock. While talking to customer service ask them to send you a parts list and breakdown drawing. These people are very helpful and will provide you with all of the information possible.

Your other option would be to pry carefully with a small pry bar to the right of center of the top drawer. I can't exactly recommend this approach, but

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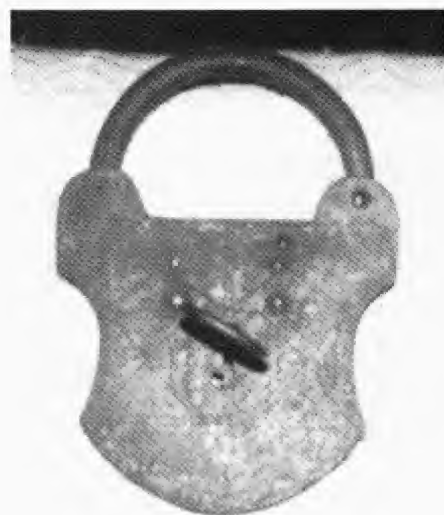
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if you are careful the only damage that will occur is a slight bend in the top of the drawer and a broken or bent locking pawl which will have to be replaced. Request the parts list first so that you can order the necessary parts when you get the cabinet open.

The handle on the front of the drawer operates a spring latch at the top of the drawer and is not connected to the plunger assembly in any way, however, you should release the latch pressure by holding the handle while prying. Should you have to use this approach, take it easy but firmly. You will be able to access the combination lock when the drawer is open.

Good luck, but make your phone call first. 03

Q: I am sending along some photos of a lock I came across and would appreciate any information you can give me in regards to this lock. (See photographs 5 and 6).



5. A large antique Mexican lock...



6...in working condition.

The only background I have on it is that it was purchased at a yard sale in Mexico about five or six years ago. This lock is in working condition with one key.

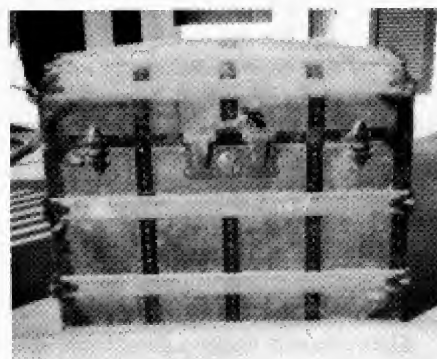
Francis Brown
Michigan

A: By golly, you do have a bigun' there. Where your lock measures 10 1/8" high by 7 3/4" wide, the largest size I have come in contact with is 11" high by 5 3/4" wide. Your piece was undoubtedly handmade in Mexico from hand forged steel.

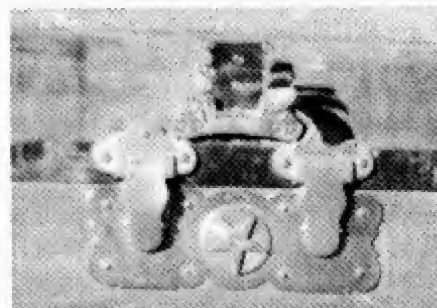
There are many variations and sizes of these locks which would be referred to by a collector as a "gate" lock. The only reason that I can see for such large dimensions is to be impressive enough to turn an intruder just by its size. I would think that this would have a collectors value of perhaps \$50 to \$100. Certainly it has to be a "one of a kind" and would look good in a collection with a front and center display.

You might think about taking this piece to an antique lock collectors show some time. There should be one coming up in Southern Michigan this summer. You could call Homer Snow at (517) 852-9455 for details. Thanks for letting us see this one. 03

Q: Can you provide me with any information on the lock on this old trunk (see photographs 7 and 8)?



7. Antique trunk...



8...which is missing the key.

I have been asked to open the trunk by the lady that owns it and short of making a key by hand that will fit, I have been unable to find any original keys or blank keys with which to file a key to open the trunk.

Here is the information that I have been able to find on the trunk. Just above the star in the center, on the face of the plate "STAR LOCK PHILA" is stamped in very small letters. "July 1 73" is imprinted on the black brackets on each side of the lock. The inscription is very hard to read.

Sliding the star in the center of the lock to the right exposes the keyway and there you see the post which I measured 1/4" diameter and 1/2" long, so the trunk would take a rather large key.

It is my understanding from the lady that owns the trunk that a relative, she believes to be an uncle, purchased the trunk on the East coast and traveled with it more than a hundred years ago around the horn of South America to the midwest.

Any information you can provide would be greatly appreciated. If you know of keys in existence and where one might be purchased for my collection, or borrowed to open the trunk without damaging it, it would be greatly appreciated.

Aaron Adams
Kansas

A: Thanks Aaron for letting us see an example of Early American workmanship. Those guys worked hard to make an item that was durable, practical, and would stand the test of time. This trunk is certainly one of those items and just imagine the stories that it could tell.

The lock was, of course, manufactured by Star Lock Works, (1836-1926) of Philadelphia, PA. I can only guess that it was from a patent issued to C. Liebrich in 1864. You have written a long letter but have failed to provide some important details.

I assume that this is a double bit lock but your description of the keyway only gives the size of the post. How large is the opening of the keyway and is it single or double? Can you see the levers? If so, how many and where located? If this is indeed a Liebrich patent it would be a double bit, single action lock with each bit (or blade) operating the latch on its respective side by turning the key about 110 degrees.

You should have no trouble impressioning a key for this lock after you



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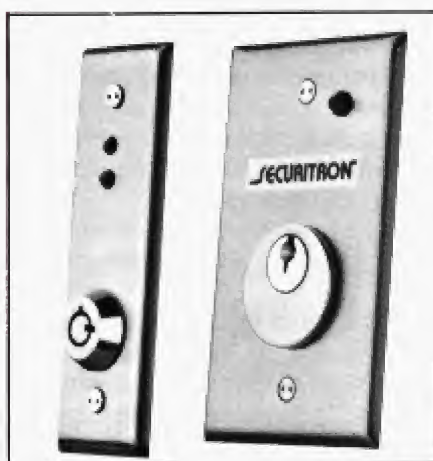
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the person entering the use of the knob for retraction of the latch.

The right angle bolt requires a special entrance device to be installed on the outside of the door. This device will allow the person to enter by simply inserting a key or entering a specific code number. Similar to the right angle bolt, an electromagnetic lock requires a special key or numeric code for entrance.

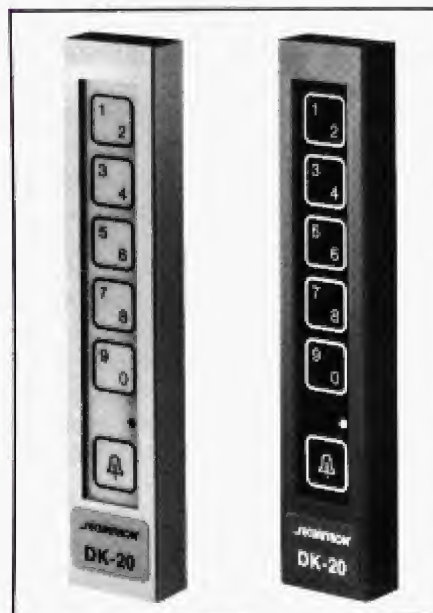
The entry switch lock. The use of the entry switch lock allows those, who are authorized, entry into the structure. Two types are shown in photograph 11.



11. Switch locks.

The mechanism on the left uses a tubular Ace round key switch. This type of lock is, of course, more difficult to pick than a standard lock mechanism. The mechanism on the right utilizes any mortise style key cylinder, allowing the locksmith to key the entry system to the locks inside the structure, if needed.

The digital keypad lock. If the installer wants to introduce a higher degree of security on the job, the use of



12. Digital keypads.

digital keypads allow this. (See photograph 12.) By utilizing the digital keypad, the person requiring entry must press the numbers in a particular sequence before the locking mechanism can be released. If a number is pressed that is not programmed in the entry code, the system locks up for several seconds, preventing the person pressing the buttons from happening on the correct code by introducing a voluminous number of numbers. Once the correct entry code is placed into the mechanism, it merely acts like a key switch, unlocking the door.

In the next article, we'll be discussing how electric locks, inside door controls, and outside key and keypad release mechanisms work together. ■

Major Safe

Continued from page 66

After being relocked into this position, this shaft simply cannot be pushed to the opening position. It must first be pushed down toward the front of the door face, then aligned carefully within the small square cutout, and then pushed back to allow freeing of the flapper mechanism. This is hard to do when you are working on the safe with the door open, so to do it from the front of the safe, through good to excellent hardplate, did not seem like the way I wanted to go at it.

I opted to drill in through the side of the unit and punch the flapper out of the way while Tom pried the bolt bar mechanism out of the way from the front. This proved to be the best mode of attack.

I made my decision on where to drill a $\frac{3}{8}$ " hole on the side of the safe. It was perfect, and I was glad I had a 5" drill bit, because two layers of steel had to be drilled before I could gently touch the flapper and relocker.

Finally I was in position to insert my 9" drift punch into the hole that I made. With quite a few blows from a 4 pound hand-held sledge hammer I was able to move the flapper and relocker. Tom raised up on his punch and the door opened quite nicely.

As a postscript, it was very expensive for the customer to have the door repaired correctly and welded properly. Now that the door is in production, it might be cheaper to replace rather than repair the door. Be advised, though, that sometimes you will have to weld on hinges if you buy a new door. Good luck if you have to attack one of these doors. They are diabolical and have earned a TL-30 label the hard way. ■